



Minicom Photography

SEPTEMBER
OCTOBER
1946

25 CENTS

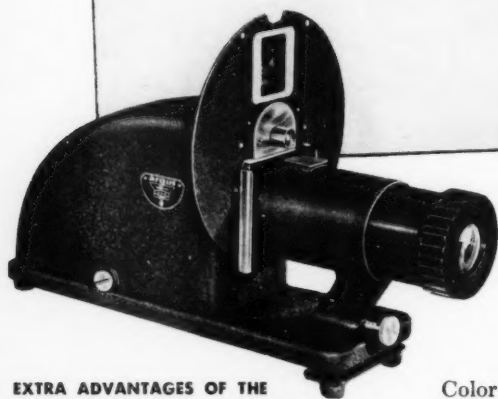
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In this issue

THE MAN FROM YOSEMITE

ANSEL ADAMS

TO DO A SLIDE JUSTICE..



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argus
projector**

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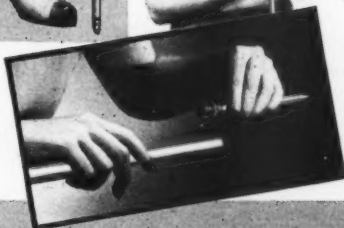
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The Master
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12 ounces



WIL-SEL PRODUCTS COMPANY

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Chicago 41, Illinois

Minicam Photography

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"Big Top Day"
(See page 22)

Cover by MICHAEL CONVERSA
• A Cover Contest Winner

MINICAM PHOTOGRAPHY (TITLE REG. U. S. PAT. OFF.) PUBLISHED AT 22 E. 12th ST., CINCINNATI, O. PUBLISHED MONTHLY BY THE AUTOMOBILE DIGEST PUBLISHING CORP. YEARLY SUBSCRIPTION, \$2.50 IN U. S. A. AND POSSESSIONS. CANADA AND COUNTRIES IN PAN-AMERICAN POSTAL UNION, \$3.00 ELSEWHERE, \$3.50. SINGLE COPIES, 25c. EASTERN ADVERTISING OFFICE: EVERETT GELLERT, 35 PARK AVENUE, NEW YORK CITY. TELEPHONE LEX.: 2-6183. MIDWEST ADVERTISING OFFICE: BERNARD A. ROSENTHAL, 333 N. MICHIGAN, CHICAGO, ILL., TELEPHONE FRANKLIN 7100. WEST COAST OFFICE: R. H. DEIBLER, 403 WEST 8th STREET, LOS ANGELES. ENTERED AS SECOND CLASS MATTER AT CINCINNATI, OHIO, U. S. A., MARCH 21, 1938, UNDER THE ACT OF MARCH 3, 1879. PRINTED IN U. S. A. ESTABLISHED 1937

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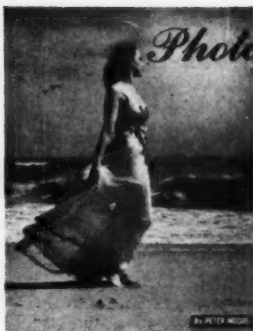
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1. The ever-widening horizons of photography present boundless opportunities to the photographer of ingenuity, versatility and skill. These essential qualities are developed and polished

through ultra-modern training at New York's famed cosmopolitan SCHOOL OF MODERN PHOTOGRAPHY. SMP graduate who helped shape his own opportunities is PETER MOORE, promising freelancer who has several outstanding accounts to his credit. Recent issues of HARPER'S BAZAAR feature several of Moore's fine shots, all of which demonstrate a remarkable "feel" for fashion (see above). Moore is one of many SMP graduates represented regularly in top-flight "slick" and picture magazines!

2. Can photographers see into the future? Camera-careerists can count their futures more secure, if they have been groomed for lasting photo success at SMP. Recent graduate for whom SMP believes the future holds much is JOHN D. FULLER (see right). A Canadian veteran, Fuller hopes to become associated with EASTMAN KODAK of Canada soon.



3. No child's play to take shots that are equally skillful no matter what the subject! Among the professionals now seeking to broaden their abilities at SMP is LEWIS G. BERRY (above). Berry was an industrial photographer with E. I. DU PONT DE NEMOURS & CO. . . plans to return to that company when his brush-up courses at SMP are completed!



4. Moving up in the world is recent SMP graduate FRED MARCUS (see above) whose VAN GOGH STUDIO is located on fashionable West 72nd St., New York City. His growing studio handles child portraiture, weddings, commercial photography, etc. In their own studios, and in every other branch of photography . . . SMP students get ahead fast!



5. Information Please! "What about tuition fees?" Specialized courses day or evening are exceptionally moderate. Visit the School, or write for outline of courses. Address H. P. Sidel, director, Dept. M9.

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136 East 57th St. New York City

The Last Word

For the want of a nail—the shoe was lost.
For the want of paper—the issue was lost. This issue of MINICAM combines the September and October issues into one. The next issue will be November, on sale as usual on the 15th of the month preceding.

Subscribers will have their subscriptions extended one month.

Paging Mr. Blanche

Sir:

After reading the letter of Mr. Emmett Blanche (June, 1946), I would like to say that if Mr. Blanche's assumption that men like Van Dare are suffering from a "cultural lag" is correct, my guess is that 99% of the people in the U. S. A. are suffering from the same difficulty. From his affection for the word "culture", Mr. Blanche must have an overdose of the same. It seems to me that no man should accuse another of a deficiency if he does not even know him, nor that any man should be so positive in his convictions as to rule out the possibility of anyone else being right.

ROBERT CRAFTS,
22 Dundreath St.,
Roxbury 19, Mass.

Sir:

Mr. Blanche, we "undeveloped ones" are glad to have room for improvement and hope to maintain that status. We, the "cultural laggards", know—in spite of your politico-economical evolutionary order—that anarchy follows revolution, dictators usurp power in democratic institutions in Germany, France, Rome, Greece, Israel—and now MINICAM! If you wish to carry this farther, I'll meet you at dawn behind the outhouse at fifty feet with spitballs . . .


R. A. LOWERY,
P. O. Box 180,
French Camp, Calif.

Madonnas vs. Ashcans

Sir:

Has it ever occurred to Mr. Axel Bahnsen that studies like Van Dare's "Madonna" have been done and redone for nineteen hundred years because they are good, solid art? As a suggestion, how would it be to devote six copies of MINICAM a year to those of us who are seriously interested in photography and "pay the freight", and devote the other six copies to the "Beauty in a 6th Avenue Ashcan" boys. This seems to me to be the democratic approach.

DON F. MORSE,
4843 Bellevue Ave.,
Detroit 7, Mich.



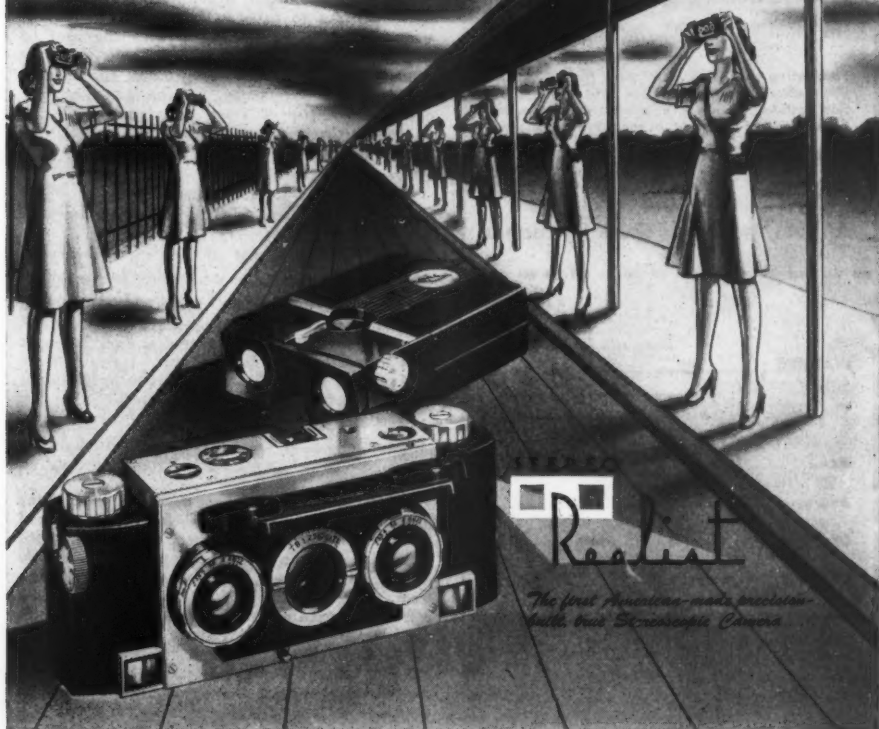
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Sir:

As another teen-ager who is a faithful reader
of your magazine, I accept the challenge of
Mr. Foesman to take an equal of his glamour
shot. My picture was made with the idea of
improving upon Mr. Foesman's picture. By
putting a light on the background, the shadow
is gone, and by arranging the girl and the
chair differently it does not look as if the
chair is sticking out of her neck.

My model was Miss Edna Hale of Fort
Dodge, Iowa.

MISS JUNE LOWREY,
1017 Central Ave., Fort Dodge, Iowa.

Sucker Bet?

Sir:

In reading the July MINICAM, I noticed
William Foesman's "Challenge to 'Teen-agers.'"
That's a sucker bet if I ever saw one. I've not
only seen its equal but I'm sure I could name
several kids who could surpass it in every detail
and at any time they made a sitting.

LOUIE LEE,
712 Orange Grove
South Pasadena, Calif.

• Though we've always known that a good many
'teen-agers were loyal MINICAM readers, we had
no idea how many of them there actually were until
William Foesman's challenge appeared in the July
issue. Since then we've been swamped with letters
from 'teen-age glamour shooters—all of whom are
certain they can top Mr. Foesman's offering. With
an impromptu contest already shaping up, we
smell a potential feature article in the offing.
So fire away, 'teen-agers—but remember that
MINICAM'S editors, though neutral, are strictly
Missourian. Don't just say you can outdo Bill
Foesman. Prove it!

Brand New!



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Super SPLICER

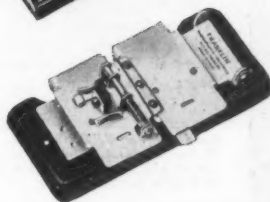
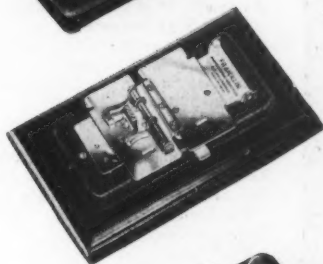
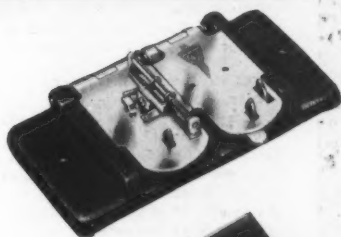
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Sh-hl They're Coming!

Sir:

I feel that articles on certain sections of the country like *TVA* and *The Bullfight*, and articles on persons like *Atget*, *Siegal* and the *Amiable Leprechaun* have no place in a magazine for amateur photographers. I would like to see good semi-technical articles on color processes, and impartial articles discussing the different brands of popular cameras, meters and enlargers. Also articles on film characteristics and the differences in developers.

ALFRED FELDMAN,
2424 Burt St., Omaha 2, Neb.

Rebuttal

Sir:

If Mr. Moen was disturbed by my "Nine Facts About Optical Coating," he hasn't anything on me.

Why do you say, Mr. Moen, that: "The all-purple coating is as extinct as the moustache cup?" When white light falls on a film adjusted for a certain color, that color is fully transmitted. Other colors are partially reflected, depending upon their wave length. The purplish appearing film is transmitting yellow-green and reflecting a small amount of violet and blue. This causes the purplish appearance.

Films thicker than a quarter wave length do have a practical use, but not for lenses. These thicker films are used on mirrors in optical systems, for greater protection to sensitive surfaces. When lenses have a green appearance, the coating is probably a half-wave thick, and the film has lost most of its reflection reducing properties. There are multiple reflections within the coating itself due to reflections at the film glass and the film air surfaces. Some light is lost through this type of reflection, even in a coated lens. When the coating becomes more than a quarter-wave in thickness, the reflection light-loss within the film is great enough to cancel out any advantage gained by the added expense. As far as my research can go, the only possible use of a thicker coating would be for lenses whose angle of incidence is 45 degrees or more.

EUGENE WYBLE,
Worton, Maryland.

Amen!

Sir:

Just received my August MINICAM. Mr. Gutterman's article was wonderful. Is "Art and Photography" dead, or do you think the readers are waiting to hear from me? If so, here goes:

I stuck my neck out, I was the sacrificial lamb, but it was worth it. We now have had clear thought on the delightful controversy. The photographers and artists are alert. The upstart Croze has heard from them loud and long. The little gems of wisdom from your authors furnish some of the answers to what I was seeking. My thanks to all concerned and yea, verily, I too might be an artist.

HARVEY CROZE.

"I Started My PHOTOGRAPHIC CAREER at 50 and N.Y.I."



Helped Me Win
Success in 3 Months!"

says

Raoul Gravel

Studio Valger, St. Romuald,
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*From a letter dated March 26, 1946
All Photographs by Raoul Gravel.



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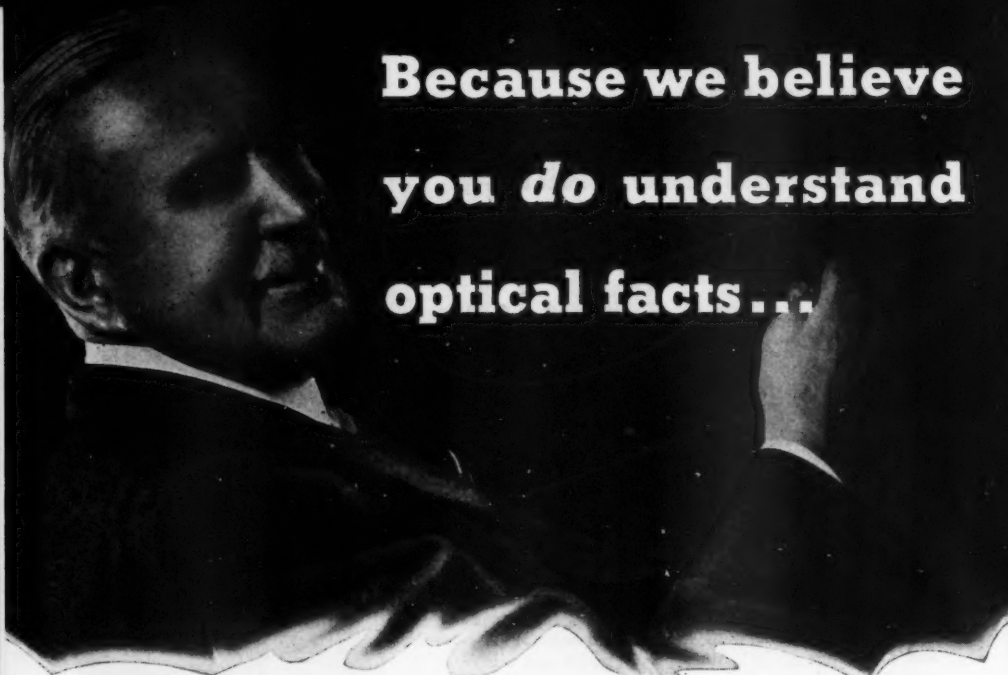
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Imagine this: your friends and family watching the screen . . . precious scenes, gorgeous color whirling along . . . and then **BLACKNESS!**

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	1000-watt T-12

See him today and get a SPARE . . . so you'll be ready for emergencies. However, for some slide projectors and projectors requiring lower wattage lamps, the supply of lamps is still limited.

For better "still" pictures keep asking for **G-E midgets!**

Remember...for every photographic purpose

G-E LAMPS

GENERAL  ELECTRIC



Photo Markets

By AGNES REBER

COLOR

Kodak Photo, 343 State Street, Rochester 4, New York. This publication can use transparencies of any size covering all subjects, indoors or outdoors. For accepted photographs, Kodak Photo pays \$10.00 and up, depending on use. This is a new publication by Eastman Kodak exclusively for users of Kodachrome film.

Crowell-Collier Publishing Company, 250 Park Avenue, New York City, N. Y. Subject matter limited to covers and photo stories. Smallest size acceptable is $2\frac{1}{4} \times 2\frac{1}{4}$. All transparencies returned after publication.

U. S. Camera, 420 Lexington Ave., New York, N. Y., is in the market for color pictures of girls, travel and unusual shots in size $3\frac{1}{4} \times 4\frac{1}{4}$ or larger. All transparencies returned after publication.

Successful Farming, published by the Meredith Publishing Company of Des Moines, Iowa, advises us that they buy color transparencies for their covers, but these must be backed by a story of not more than 1,500 words on the cover subject. They also frequently include color transparencies which would lend themselves to free-lance submission. Transparencies of the following sizes are preferred: 4×5 , 5×7 , and 8×10 . Occasionally 35mm. slides are used, but these must be sharp and full of punch. If desired, all transparencies are returned after publication. Successful Farming points out the fact, however, that their territory comprises the 13 Midwest States and New York and Pennsylvania, and they would not be interested in free-lance cover material outside that territory.

Southern Agriculturist, Nashville 1, Tennessee. Color transparencies are purchased in $4" \times 5"$ and up, but no 35mm. slides are accepted. They are interested in subjects of general interest, and of course, Southern farm subjects. Transparencies returned after plate making if requested by source of submission.

Progressive Farmer, Birmingham 2, Alabama, purchases 4×5 or larger transparencies of Southern rural scenes particularly, and if agreed upon when sale is made, will return transparencies.

Country Gentleman, The Curtis Publishing Company, Independence Square, Philadelphia 5, Pennsylvania, desire cover photos in color. They will not consider 35mm. stock and do not want horizontal compositions in sizes smaller than 4×5 . Top prices are paid on acceptance of exceptional material. Address pictures to John Funk, Art Editor.

BLACK AND WHITE

Educational Publishing Corporation, Editorial Department, 23 Leroy Avenue, Darien, Connecticut, wants pictures of children and animals—those that suggest a story; also attractive pictures of children of other lands, and pictures of industries. Rate of payment depends on type of picture.

The Milwaukee Journal, Milwaukee 1, Wisconsin. Mr. Stanley E. Kalish, Picture Editor, advises he can use black and white glossies in size 8×10 or larger on subjects of timely interest.

Pittsburgh Sun-Telegraph in Pittsburgh, Pennsylvania, can use 5×7 and 8×10 glossies. Pictures must be spot news ones almost exclusively. Send photographs to William E. Baird, Picture Editor. On accepted pictures, Mr. Baird requires model releases.

Kilborn Photo Paper Company, Cedar Rapids, Iowa. Outstanding black and white photos of high quality are wanted for advertising purposes. For 8×10 glossy and original negative payment of from \$1 to \$5 will be made. Upon acceptance, photos become exclusive property of Kilborn. Pictures may be of nearly any suitable subject and will be judged on the basis of technical qualities and composition.

H. L. Peace Publications, 344 Camp Street, New Orleans 12, Louisiana. Publishes *Southern Laundry and Cleaner*, *Southern and Southwestern Bottler*, *Southern Marine Review*. Wants photographs of laundry plants, dry cleaning plants, personnel, fires—these should be taken in areas south of Baltimore and Ohio River. Photographs of carbonated beverages, bottling plants, personnel, fires, taken in same territory as mentioned above. Photographs of southern ports, docks, harbors, shipyards, shipping and shipbuilding personnel in same territory. Payment is \$2 to \$5 per print.

Philip D. Gendreau, Press Illustration Service, 369 Lexington Avenue, New York 17, New York are interested in seeing photographs with a view to purchasing the negatives of family scenes—seated at dining table, engaged in various activities—young men and young women photographed together, engaged in various sports, games, etc.

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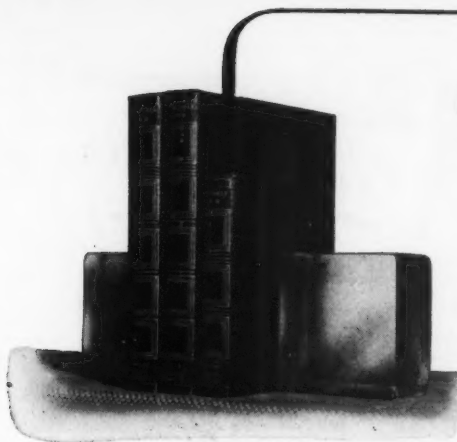
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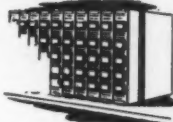
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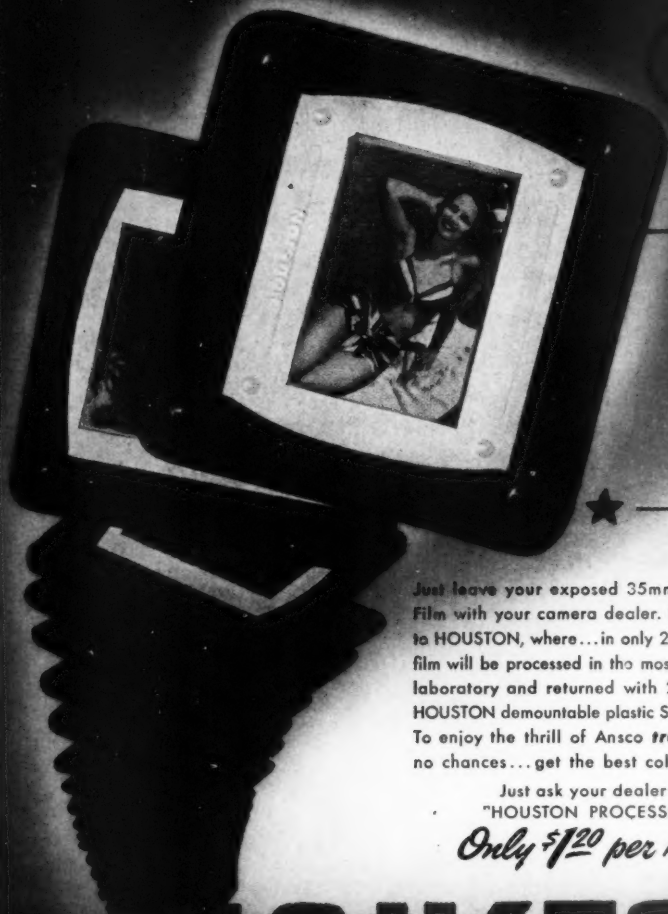
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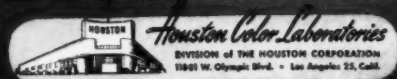
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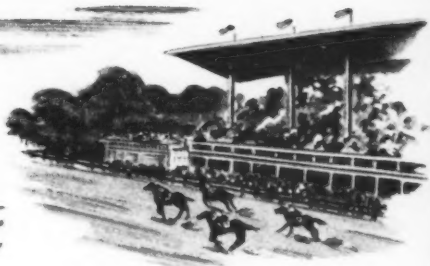
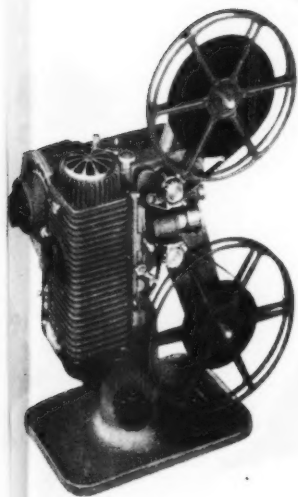
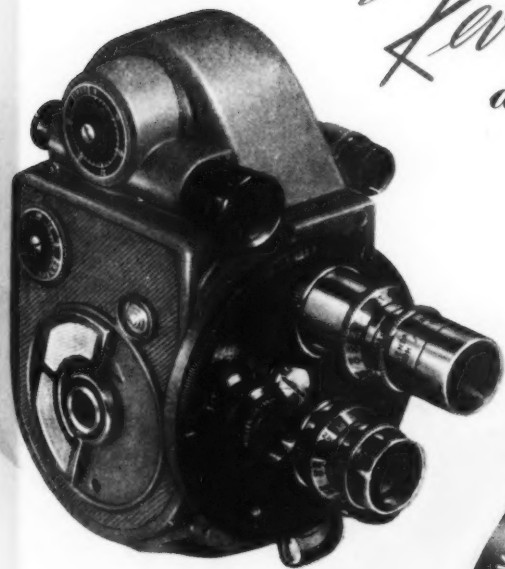


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BIG TOP DAYS

By PHILIP A. BAILEY



O. C. Sweet

The how, when, where, and why of shooting circus pictures as explained by an amateur photographer of 12 years experience

FROM THE TIME the first section rolls into town in the crisp dawn until the last fanfare of the brass band at night, a big circus is truly a camera-fan's Utopia. Here is a made-to-order world in which reality is wedded to the magic of make-believe, a kaleidoscopic

world of fact and fancy calculated to plumb the very depths of your photographic ingenuity. Color, action, animals, humor, picturesque characters, human interest—even cheesecake—all await the photographer who greets the dawn of "circus day" with a yawning lens.

H. Tabor—Black Star



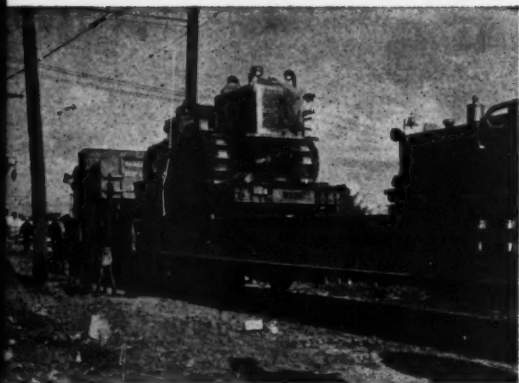






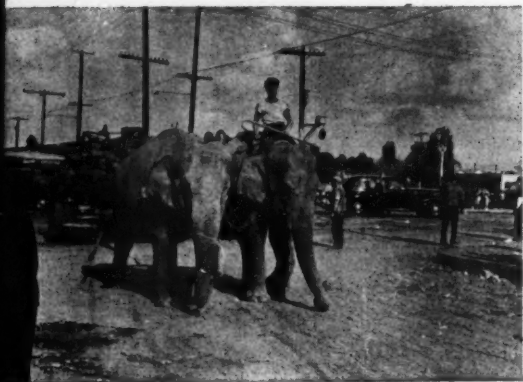
KING COLE

HAROLD M. LAMBERT



TRACTORS unload the flatcars.

TENT POLES enroute to the lot.



ROUSTABOUTS unload the tent poles.



THE MORNING SHOTS

For a complete record of a sawdust day the photographer should be down at the "runs" when the first ponderous wagon is eased off the flats and hitched to a lumbering elephant team. Horses, ponies, camels, zebras, llamas, yaks and buffalo will be silhouetted against the daybreak as they are led from the stock cars. There will be action everywhere. Rumbling tractors and trucks, dragging long strings of brightly painted wagons, will begin snaking their way through traffic to the show-grounds. Tough razorbacks will empty the circus train in a matter of moments.

When you arrive at the lot you'll find the cook tent up and the flag flying, announcing breakfast for the hungry train crew. Roustabouts will be attacking a maze of canvas and ropes. The triple-stake driver, chugging and rattling, will be making its busy rounds of the big top oval. The boss canvasman will be bellowing orders to the gang of huskies unloading the big top poles. An elephant team will hoist the huge poles into position by a clever cable arrangement; then will come the big moment when the pachyderms steadily pull up the big top. Under the still-drooping canvas will troop more work elephants to raise the quarter poles and as each section of the main tent is made ready, gangs of men will rush

A BULL TEAM raises the center pole.



in to begin erecting the seats. On a lesser degree this same procedure will be followed on the rest of the tents.

During momentary lulls in the morning activities, the photographer will find various animals picketed around the lot as well as picturesque cage wagons which can be shot before they are moved into the menagerie. Elephants will line up for their big drink, dip their trunks in the buckets and spray water over their backs. Bull men will go to work on them with brooms, getting them shined up for the afternoon peanut feed. Performers just arriving on the lot will begin checking to see that their trunks have been spotted just right in the pad room and before long the gals of the flying trapeze will begin hanging out their washing on guy ropes.

By one o'clock in the afternoon the crowds will begin to gather on the midway. The sideshow barkers will start their pitch, hula gals will do their "come-on's" on the bally stand; from within the sideshow tent will come the blaring tunes of the minstrel band. Picture opportunities will be everywhere—but there may be a clinker in the photographer's plan to snap the pictures he wants. That is why, if he is wise, he will have made arrangements with the management to take pictures long before the afternoon show begins.

Photos by Philip A. Bailey



SAILMAKERS sewing up a rip in the big top.

STRICTLY aqua pura.



WASH DAY in the circus "backyard."



A CAMERA FAN shooting a sixteen-horse hitch.



HOW TO GET PERMISSION

Most of the larger circuses require that you obtain written permission from the press department or management before taking pictures anywhere on the circus lot. The best way to get the management's co-operation is to explain exactly what you are after. It is also a good idea to make it clear that you aren't using a camera as a hoax to see the show free. Some camera fans buy tickets in advance for the evening performance and show them to the management when they request permission to take shots in the backyard during the matinee. In some cities where the big shows are crowded on tiny lots, the management is forced to deny permission to many camera fans because of the danger that they might be trampled by the big animals.

Of course, if you have either good press credentials or newspaper or circus friends, you will probably have no trouble getting permission to roam around freely. Another good way to help insure getting in the backyard, if you are a true circus lover, is to join the CFA, Circus Fans of America. Information about the CFA can be obtained by writing Gil Conlinn, national secretary of CFA, 71 Allendale Road, Hartford 6, Conn.

One of the mottos of the CFA is to boost the circus and a member always pays his way into the main performance. The CFA have clubs, which they call tents, in many cities from coast to coast. They have parties where they show their pictures, talk circus, and often have famous circus performers as guests. In New York the Circus Saints and Sinners Club has a membership whose names read like a page from "Who's Who."

BACKYARD PIX

If you are lucky enough to obtain permission to shoot pictures in the backyard, you will want to be on hand as the performers gather for the opening spec or grand march. With most shows this is the most colorful affair of the whole performance. Almost everyone is in it but the ushers. Some of the negro roustabouts



THE MIDWAY



Harold M. Lamberti

you photographed driving a stake are now decked out in African garb to escort languishing beauties around the arena in decorative cradles slung between two camels. Every color of the rainbow is splashed into the costumes—a challenge to any color shooter.

Between acts, the princes of buffoonery hang out in clown alley, near the back door. A big top series isn't complete without some shots of the clowns who, experts at pantomime, will generally cooperate with you in getting unusual pictures. Otto Griebing, Cole Bros. top clown, once suggested to me that we might get some unusual shots with him posing beside some show posters. We tramped for

blocks around the neighborhood with Otto dressed in his pathetic hobo outfit before we found a billboard that suited us for picture making.

There is always something worth photographing around the tents. Horses being shod in the blacksmith's tent, roustabouts asleep on the straw, kids sneaking in under the canvas, sideshow freaks making the first call to the cookhouse. In the vast menagerie tent you'll find everything from Gargantua in an air-conditioned cage, to herds of peanut-hungry elephants. This calls for zoological photo technique. Flash bulbs will help penetrate into the shadows of the tiger cages.

Harold M. Lambert



LIGHTING AND EXPOSURE

Since lighting conditions vary under various big tops, it is impossible to give a set exposure. All tents are now heavily treated with a fireproof preparation and those colored blue and red don't admit as much light as the old white tops. Whether or not the sun is shining outside will have a lot of effect on your under canvas exposures. Unless you are using a flash you will need a camera with an $f:4.5$ or faster lens for taking action pictures inside.

You can get sharp action shots of circus performances at comparatively slow speeds by snapping the picture at the peak of action when the movement stops for a

split second. As an example of this, I once photographed an aerial gymnast doing one-arm flanges. High in the air above the ring she cast her body in a complete arc scores of times while hanging on a rope by one hand. I noticed that she paused momentarily with her legs straight up in the air before swinging downward. Snapping at $f:3.5$, $1/40$ second with Suped-XX film, I got a picture in which she appears to be standing on her hand in mid-air. Shots of her upward and downward swing were blurred by the fast action.

The artificial lighting is usually better at the night show for performance shots

(Continued on page 144)

Harold M. Lambert



The Man from Yosemite

ANSEL ADAMS

By CHRISTINA PAGE

ANSEL ADAMS of San Francisco is the most recent photographer to be awarded a Guggenheim Fellowship. Among other photographers who have received the award are: Edward Weston, Brett Weston, Dorothea Lange, Elliot Porter, Walker Evans, and Wright Morris.

Adams' project will consume almost two years with side trips to Alaska and Hawaii. He calls his Guggenheim Fellowship project "Interpretation of the Natural Scene in Relation to National Parks and Monuments." Results of the work will belong to Adams, who hopes that it will take the form of a book. "Not a book of picture post cards" he takes care to add.

Adams has always been noted for his mountain photographs and for his exploration of their seasonal changes. Yosemite Park and the Sierra Nevada have been his particular sources of inspiration and he has made hundreds of negatives of their vistas, trees, rock, and peaks.

In his photographs he tries literally to reproduce grandeur, space, immensity. Especially clear, needle sharp, sparkling, prints, with a tonal range beautifully adapted to the emotional tone, have come to be practically a trademark of his work. In the naturalistic type of photography he ranks with Sullivan and Jackson, and with Edward Weston and Bradford Wash-

burn of our day.

In this very perfection along one line there lies a limitation for the photographer, and in it lies the chief criticism which can be made of Adams' work.

Adams is a photographer who travels in a very narrow path; a photographer who limits the scope of his subject matter to one area. His emphasis is on natural scenes in an era when the world is almost completely interested in human values, and their social and political significance. It is the old ivory tower question. The work of an artist in relation to the time in which he lives, must enter into an appraisal of his work.

In his latest book, "Born Free and Equal" Adams extended his work into the documentary field, attempting to portray the story of loyal Japanese-Americans.

The photographer himself looks on this as a step in his development because it started him photographing people with a social point in view, but he probably should have stuck to his mountains. Aside from being "good" propaganda, from the point of view of showing the Japanese Americans as being just like any other Americans, the book is poorly done. It consists mainly of large portraits, and they (though technically unassailable) are not good. They do not imply any of those depths of feeling and experience in-

ILLUSTRATIONS BY ANSEL ADAMS



EL CAPITAN, YOSEMITE VALLEY



NAVAJO MOTHER AND CHILD

Courtesy U. S. Department of the Interior

herent in human beings, which one must feel behind the image of a successful portrait.

Adams thinks you should understand the technique of photography so well that you have absolute charge of what is happening all the time, from the making of the negative to the final mounting of the print. If you have this much control, he says, then you can go ahead and express what you want to express, in the most effective photographic way.

In practice, Adams sometimes comes near to being able to do this. The finished prints of his mountain vistas are the

products of a man who knew what he was doing when the negative was made. His techniques, excellent though they are for catching the aesthetic qualities of inanimate objects, cannot be applied successfully to photographing people. It remains for the future to show whether portraiture will ever be a very fruitful form of work for Adams.

For the rule proving exception, reproduced here is a print which he took recently in Richmond, California. It is a "grab shot" and as such is not typical of his working methods. But it proves that Adams, like any versatile photographer,

on occasion can turn out a superb shot in a field in which he does not compete.

There are as many opinions about Adams as there are people who see his work. For example, the teacher of a rival photographic class has been known to remark: "There are two things I hate. Cows in the pasture and an Ansel Adams photograph." On the other hand, one of Adams' students says: "As far as I'm concerned, Ansel is the Christ of photography and I am one of his disciples."

IN the San Francisco *Chronicle* of April 14, 1935, Adams wrote: "When I began to work with the camera I had the pictorialist outlook. I made retouched prints that were frequently imitations of other media-painting."

Today he prides himself in the fact that: "Technically my work is one tenth as complicated as the average pictorialist's. I use no paper negatives, no indirect pro-

cesses, no manipulation. I simply get the values where I want them on the negative and then I print so as to bring out those values according to the concept I want to express. The differences in technique between one photographer and another are slight; what makes one photographer's prints differ from another is the concept."

Adams' working plan is expounded in a recently marketed "*Exposure Guide*." The guide has an explicit foreword stating just how he figures the light value of a given subject with the meter, and how he exposes the film. It shows how to place the exposure on the scale and how to correlate it with development. The basic idea is that the negative should be exposed for the scale of the particular paper to be used in printing.

When he has finished making an exposure, he jots down all the relevant data in a pocket notebook. He has used such a book for years, insisting that he does

NEW MEXICAN CHURCH



ANSEL ADAMS SAYS OF THIS PICTURE:→

Apart from functional considerations of fact and record, a photograph is made because of a personal desire to express something. This personal expression can not be subject to analysis; what is conveyed in the print should be self-evident. The relationships of form and substance, the illusion of light, the selection of the point-of-view, the significance of the subject itself, may be discussed in mechanical or technical terms, but the unified emotional statement of the photograph defies analysis. If the spectator responds, the photograph "works;" if he does not, the photograph does not work—for him, at least. Too much emphasis in photographic circles is devoted to ways and means of defining emotional "constants," when the emphasis should be on clarifying technical facility and command, and freely encouraging people to think and feel for themselves.

"Acoma is one of the grandest of the Pueblos of the Southwest. Situated high on a barren mesa, or rocky plateau, near the "Enchanted Mesa" south of Laguna, New Mexico, it is built chiefly of stone faced with adobe mud. This picture includes one of the pools renewed by rains (which comprise the major water-supply). The towers in the distance are of the old church which faces the east and overlooks the plain far below. A few of the buildings of the Pueblo, of faced and unfaced stone, are also seen. The peeled poles are for ceiling beams or "vegas."

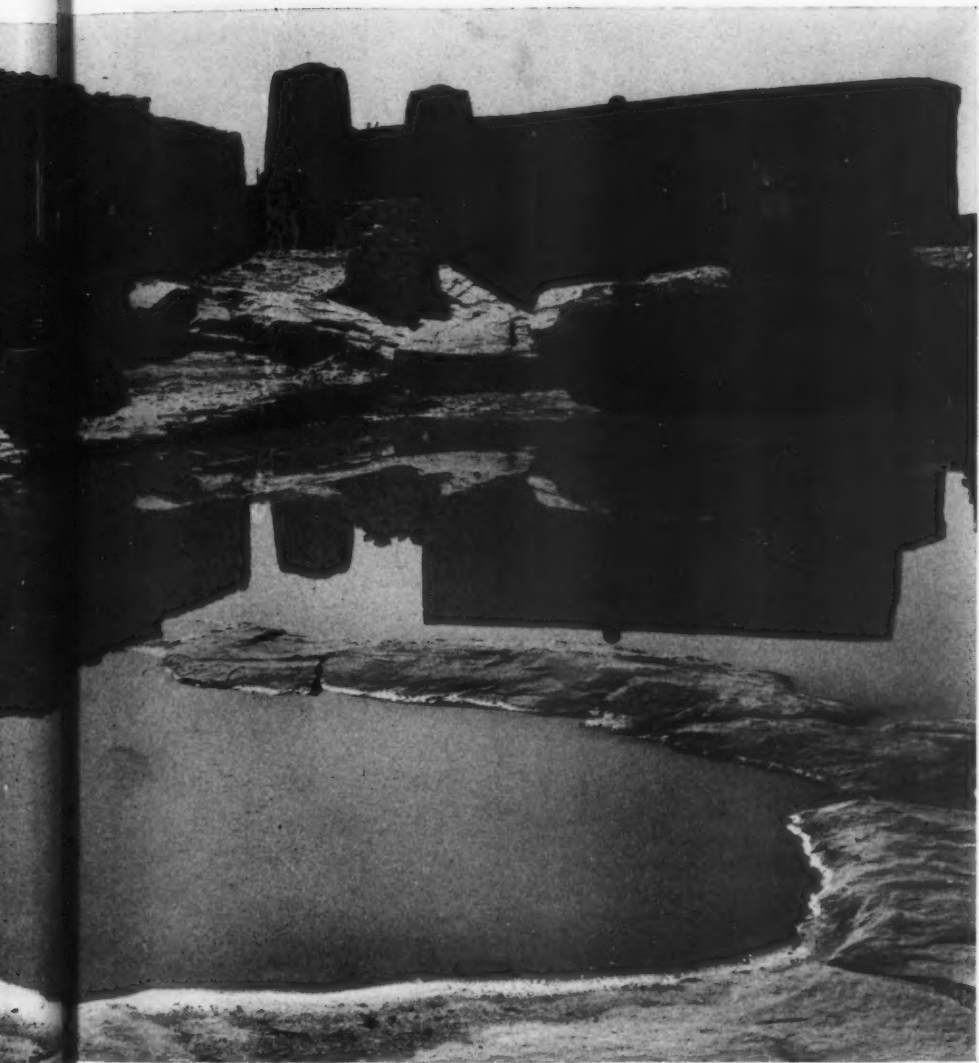
"The photograph was made in mid-morning, against the sun. Ample exposure was given to assure textures and mass in the shadows. The sky was intentionally allowed to remain very light—chiefly to give the feeling of brilliancy. The depth-of-field problem was relatively simple; achieved in this instance by slightly tilting the lens. As few of the buildings of the Pueblos are strictly "perpendicular," exact alignment of the camera-back is not essential. In this case the camera was pointed slightly down, the back adjusted to near-perpendicular, and the depth-of-field compromised by the slight tilt of the lens. The camera was a 5x7 Juwel, with a 7" Zeiss-Goerz Dagor. The film was Isopan, developed in Agfa 12 (Metol). No filter was used. The print is an enlargement on Kodabromide F 2, developed in D 72 or Ansco 103."



Courtesy U. S. Department of the Interior

refer to the data during development and that that is the only way to work.

Adams has taken quite a ribbing sometimes about his system of notes, and about the meticulous way in which he teaches his students to work. But he answers such criticism with complete seriousness, a thing unexpected in the setting of his usual humorous remarks. His defense: "I



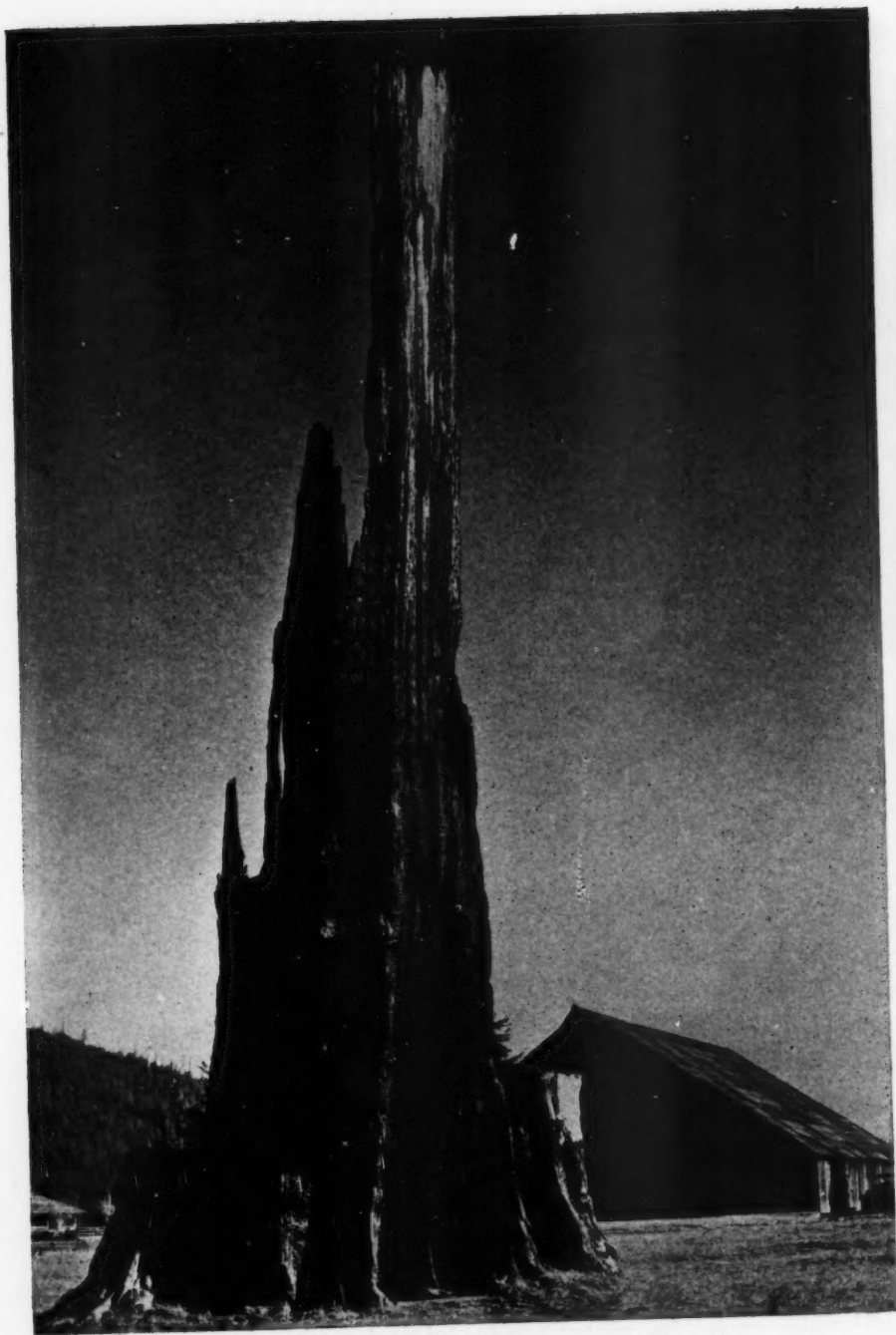
ACOMA PUEBLO, NEW MEXICO

believe that photography is a great medium and I accord it all the respect that it warrants." It is true that his approach to photography is utterly sincere, and he probably has done as much as any one may to elevate the medium from a plaything for amateurs to a serious and workmanlike status. His greatest contribution to photography has probably been

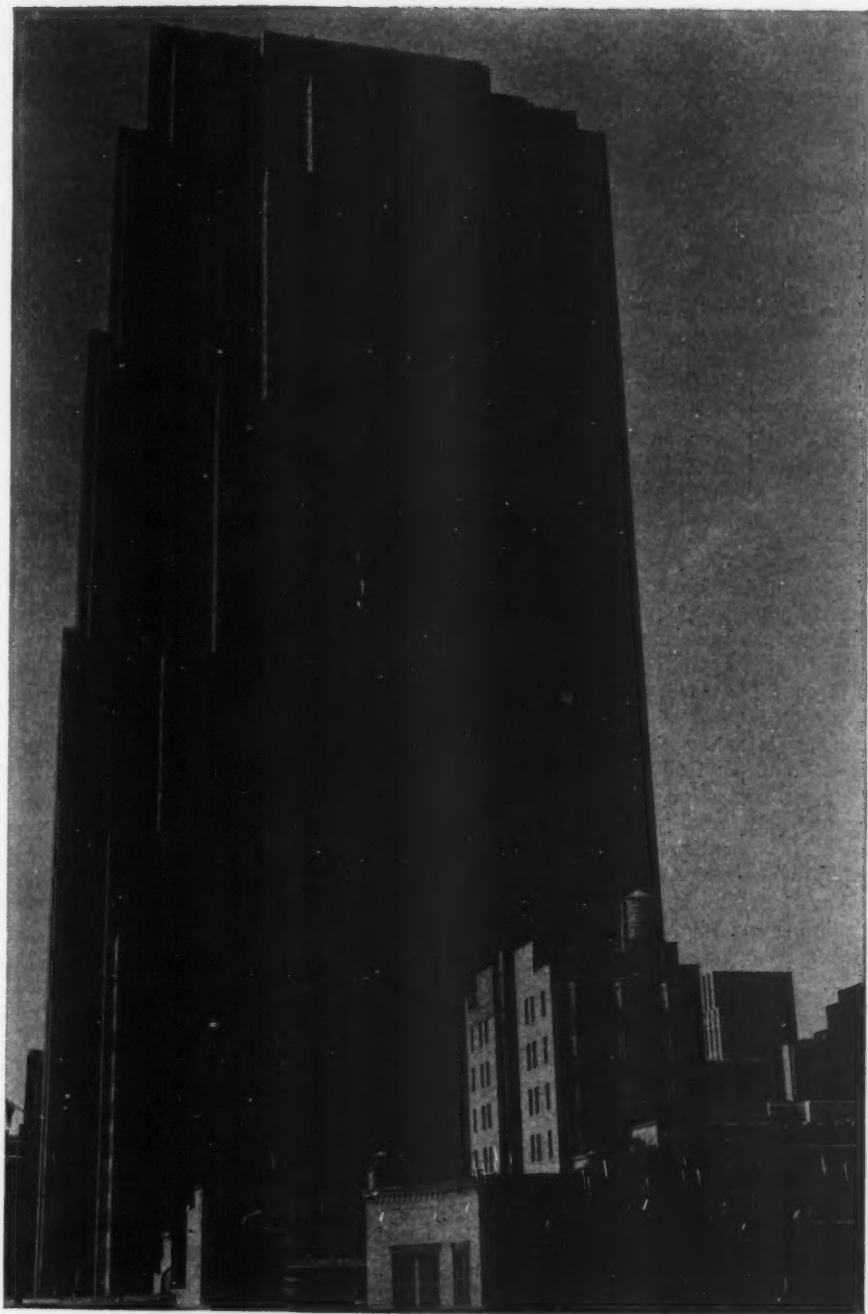
his championship of such photographic attitudes.

In the formative years of his photographic development Adams was a motivating power in the historic F 64 group.

As is usual with arts movements there seems to be some argument now as to who belonged to the group but it included Edward Weston, Willard Van Dyke,



REDWOOD SNAG, SCOTIA, CALIFORNIA



RCA BUILDING, NEW YORK CITY

Henry Swift, Imogen Cunningham and Ansel Adams. The movement dates from around 1930, when Adams was responsible for the idea and Van Dyke was responsible for the name and development of the group. The F 64 group was dedicated to improving the clarity and sharpness of photographs (as symbolized by stop F 64) by making straight prints. This came as a reaction to the soft focus things then in vogue.

The accent of the group was on technical performance and non-conventional "seeing." Adams says that if he were starting the group now, he would put emphasis on the content of photography rather than its technique. It is significant of Adams' own growth that now he would include other values. His own ideas are constantly developing.

IF Adams finds something good, he takes out his equipment, sets up, composes on the ground glass, measures his light carefully with the meter, and then makes the exposure. He will sometimes go through this rigamarole and not make an exposure. He is quite capable of changing his mind at any stage of the game, from the field through the darkroom processes. You cannot tell, watching him, just what difference exists between this photographer and any competent amateur.

But watch him in the darkroom as he is printing and you learn what the difference is. Adams is a naturally fast moving, rather nervous person, and he prints swiftly and well.

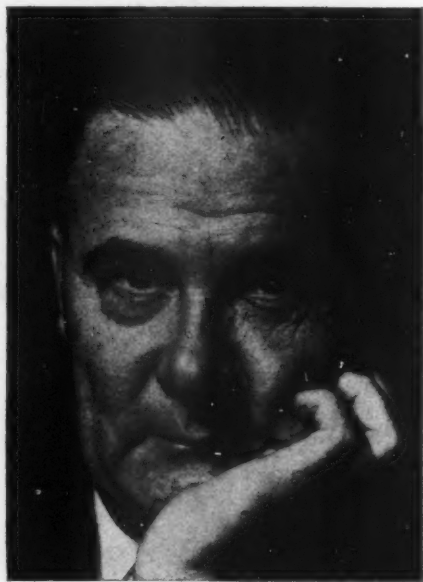
All the time he is printing, he has the concept of the values he wants in the back of his mind and he prints accordingly. He uses glossy paper because it has the greatest range of tonal values but he does not necessarily ferretotype it.

Test strips he uses in great numbers. His usual procedure is to print for the whites, using test strips in the white areas until he gets the quality that he wants. His whole scheme of things is set up to print for the whites, using the softest paper possible (usually a No. 2).

After he has the whites the way he wants them, he prints for the blacks, still using strips, and then he makes a whole print. This he studies for modifications of exposure and development, judging where to dodge if necessary, and looking critically at the effect of the thing. If this is satisfactory, he makes his print.

Unlike Strand or Weston, who supposedly do not enlarge, Adams does a lot of enlarging. Sometimes, for instance, as in the case of the photos which he has done for the Department of the Interior, he enlarges to mural size. When he is working he tries to use the largest negative he can, in order to preserve negative quality, but he enlarges everything from 16 mm. size film on up to his 8x10 negatives.

At present he is using Ansco 47 or Eastman D23 for negatives, but practically every week he has a new enthusiasm for a developer. He usually tends towards the fine grained ones, and he is very fond of pyro, because of the wide range of control he can get from it by



A SHARP departure from the typical Adams picture is this portrait made by photo-flash.



TRAILER CAMP CHILDREN, Richmond, California. Though Ansel Adams is noted primarily for his photographs of western landscapes, this socially significant picture proves that he can, upon occasion, turn out a superb shot in a field in which he has made no attempt to excel.

cutting the carbonate content. On the Guggenheim project he thinks he will use pyro-catechin, because it has a good compensator for the negatives of extreme contrast which he will probably get working out of doors.

Adams has his field equipment logically organized. For transportation he uses a station wagon equipped with a platform on top something like a ski rack. This arrangement provides height when necessary. In the back of the wagon he carries all his cases full of equipment.

He owns two Juwels, a $3\frac{1}{4} \times 4\frac{1}{4}$ and a 5×7 , (the last with an extra 4×5 back), and 8×10 Agfa View Camera,

a Contax with a 35 mm. Biagon lens, and a 50 mm. F:1.5 Sonnar, and a Super Ikonta B. On the 8×10 he uses a Cooke Triple Convertible lens. He also has a 4×5 Graflex which he uses occasionally for portraits but he does not carry it with him in the field. He has never used a Rolleiflex and does not care for that type of camera because "what I see from my eye is different from what I see from my navel," but he is very fond of the Super Ikonta B. He feels that he has adequate but not elaborate equipment. He says he would carry less equipment if he could do so and still be ready to shoot anything which might come up.



MONUMENT VALLEY, UTAH

UNTIL he was twenty-five years old, Ansel Adams was trained to be a concert pianist. He says now "If I'd kept at it and concentrated on music, I'd be an awful good Bach player. But I overpracticed. Became stale. No feeling. The stuff came out like a juke box." So in 1927, on the advice of his piano teacher he took six months off from practice. To while away the time he turned to his two hobbies, mountaineering and photography. He became intensely interested in combining the two and decided right then to earn his living at photography.

He is a director of the Sierra Club, a teacher at the California School of Fine Arts in San Francisco, and a lecturer of some experience.

When the late Stuyvesant Peabody launched the Chicago International Salon he selected Ansel Adams as a lecturer, and Adams came lugging cases of slides

that traced the history of art and photography from Cro Magnon cave wall tracings to the Museum of Modern Art of which he is vice-chairman of the advisory committee on photography. He is the author of seven books, and right now is working on a series of technical books for Morgan and Lester, "just routine jobs," a book on "Creative Photography" for the London Studio, and a new illustrated edition of John Muir for Houghton Mifflin Co. He is still an excellent pianist. At least one of his friends thinks he is a better pianist than photographer.

In 1927, the same year he went into photography professionally, San Francisco's patron saint of the arts, Albert Bender, became interested in Adams' work, and as a result the Grabhorn Press came out with "*The High Sierra*." In those days, though there was a great interest in photography in San Francisco,



TETON MOUNTAINS, WYOMING

Courtesy U. S. Department of the Interior

it was still not artistic to call the product a "photograph." Adams called his "Parmelian Prints." He is rueful over that name now. "I had a hell of a time living it down," he says.

"Taos Pueblo" came out in 1930 with text by Mary Austin. While he was working on it in 1929, he saw some of Paul Strand's New Mexican work, and Strand became the first major influence in Adams' development. "Quite a kick in the spiritual pants" he says, adding reverently, "But it cleared my vision."

Since his marriage in 1928, Adams has maintained a home in Yosemite Valley, where he and his wife had the photo concession, as well as a home and darkroom in San Francisco. The San Francisco darkroom is in the basement of his father's house and was built by Adams personally. There is a printing and developing room and another workroom

for finishing and mounting. Many an amateur has a more luxurious layout. The equipment has been kept at a minimum, with emphasis on quality necessities. For instance, the enlarger is fitted with an 18 inch Zeiss Apo-Tessar lens. The enlarger itself is a horizontal type, necessitated by the huge prints he sometimes makes for murals. His stainless steel trays were especially made for him.

Aside from that, the darkroom is a somewhat drafty, barnlike place through which he has to wade from time to time when the sink overflows. The telephone extension is outside of the darkroom in a hallway and when he is working there is a constant running back and forth to answer it. The phone rings, he asks you to count for him, and you do while he explains a point from a lecture to a student who didn't get complete notes. You hear him conclude the conversation with

a remark that "Sure you can use my dark room. I don't care what goes on in here, but for God's sake, lock the door!" and then he comes rushing in and in all seriousness, and without a pause, he wants to know if you took the print out at 90 or 95 seconds.

When you ask Adams who influenced him, he replies: "Only time will tell the difference between imitation and influence."

But he did admit in the *San Francisco Chronicle* of April 14, 1935, that "About 1931, under the influence of Paul Strand, a disciple of Alfred Stieglitz, I came to my present point of view (away from a manipulated print) which had been expressed, but not followed, in the photographs of Edward Weston, Carmel. Weston, Strand, and Stieglitz I regard as the great triumvirate of contemporary photography."

Adams has a humorous outlook on life which is completely at odds with his serious photographic prints. Because he has a reputation as a mountaineer, people expect him to look and act like a model boy scout. Actually, he manages to look somewhat like a worldly ascetic. He is 44, very slim and over six feet tall. He often swathes himself in a gray overcoat. Above its collar appears his pointed black beard, above that his intense dark eyes, and right above that perches the large ten gallon black hat which he habitually wears. People always look at him at least twice. He has worn a beard off and on for years. It sometimes gets referred to as the nest of the frustrated sparrow.

KNOWN among his friends as a great wit, it is difficult to repeat any of his friends' stories here because they all begin by saying, "Well, this is off the record, but—" Adams is reputedly apt to call his friends long distance to tell a joke. If he feels good at a party, he may go to either of two extremes: He is likely to take the center of the floor and convulse everyone with the story of a light-house, told by popping and turning his eyes, or he is just as apt to quiet everyone

into silence with the first chords of the *Moonlight Sonata*, and then go on to give a concert.

At times his wit is apt to be clownish, for as one of his friends puts it, "he can be ridiculous quite attractively." For instance, he can render Bach using two oranges on the keyboard for sound effects.

The bevy of his students with their loads of equipment roving over San Francisco hills twice a week, are contributing no little addition to the already well established Bohemian tradition in those parts. The black-bearded, black-hatted shepherd of the flock also adds to the amazement of the bystanders who invariably gather.

At the end of a day with his students, Adams is still going strong. The weather is apt to have turned cold and windy and drizzly, and the rest of the class will be standing around in miserable and uninspired groups. But Adams is happily absorbed under his focussing cloth. From under it will come floating the words: "Something about photographers. They retain a certain amount of enthusiasm."

And that just about sums up . . .

ANSEL ADAMS



A JIFFY PRINT STRAIGHTENER

By JOE CLARK H.B.S.S.



ABOVE, the left-hand print has been through the straightener. The right-hand print has not. BELOW, loading the straightener.



IF YOU ARE an average amateur (i.e. a fellow whose photographic budget is generally too anemic to be on speaking terms with the more expensive gadgets), an electric print-straightener is probably out of the question. This being the case, you may be interested in a home-made de-curlifier that can be assembled in a jiffy and should cost you nothing.

All you will need to make an efficient print-straightener is an ordinary mailing tube, a long strip of wrapping paper, and a piece of twine. The mailing tube should be four inches or more in diameter and a little wider than the largest print you expect to straighten. The strip of wrapping paper should be the same width as the mailing tube, and at least six feet long.

Dry prints to be straightened are simply laid face down on the wrapping paper and rolled up around the mailing tube. Up to a hundred prints can be straightened at a time, depending upon the length of the strip of wrapping paper. As soon as the straightener has been loaded it should be tied shut and the prints set aside overnight. Although no heat or moisture is applied, my experience has been that this simple straightener often does better work than the \$85 electric print-straightener I use in my commercial studio.

Let's Make TITLES

TEXT BY STANLEY N. TESS

EFFECTIVE titles can do much to brighten up a film and to give it some of the flavor of a professional production. With a little effort any of these ideas may be adapted to your particular script.

Objects commonly found in the home are used effectively in the creation of excellent motion picture titles. Here are two ideas employing a parasol:

THE FOLDING PARASOL

Letters cut from paper of a contrasting color may be pinned or pasted (using rubber cement) to an opened parasol. To shoot this title, a girl, or a boy and a girl, hold the parasol in front of them.

The camera is then brought near for a close-up of the wording, so that the parasol fills the screen. After running off sufficient footage for the title to be read, our parasol is folded, revealing the persons behind it. The continuing action now takes place. This title may be used to open either a production or a sequence.

An additional adaptation of the Folding Parasol makes a good title for ending a production. Large letters are cut out to form the words, "THE END". These are pinned to a parasol in such a way that the parasol may be folded or unfolded without tearing the fabric or disturbing the position of the letters. For our final scene, the principal character or characters unfold the parasol and stand or sit behind it so that the parasol and words fill the screen. This is good for a film featuring romance. The beach or a garden seat will make an appropriate setting for filming the parasol end title.

MOVIE FEATURE

REVOLVING PARASOL TITLE

The Revolving Parasol title is similar to the Folding Parasol, except that the parasol is kept distended at all times. The main title of the production is cut out in cardboard or paper letters which are attached to the upper half of the parasol's surface. When the audience has read this, the parasol is given a half turn, so that the remainder of the title, which has been attached upside down, is now right side up.

After the other half is read, the parasol is gently laid aside by the character who is holding it, this being a clever way to introduce the main character or characters to the audience. A beach umbrella may replace the parasol when it suits the script.

THE BIG FIRE

Titles which are worded similar to those used in the professional movies back in 1910-1915 still retain their old appeal and dramatic flavor. If you are so fortunate as to obtain some good footage of a big fire, you may give your film a literal title such as, "THE BIG FIRE". Here are three suggestions for making a title for such a film:

(a) Take a piece of asbestos and cut out in stencil form, the words, "THE BIG FIRE". Tack this to a wood frame and clamp the frame in front of the burner on a gas stove. When ready to shoot, turn the burner up as high as it will go, so that flames leap into the air for several inches behind the asbestos stencil.

Place a piece of sheet iron, painted gray, just back of the flames to cast lights through the stencil. If you have a friend who smokes, have him blow some smoke fumes up in front of the stencil, while the camera is running. It is wise to keep a fire extinguisher or a bucket of water at



PROCESS titles are favorites of Edison Thomas and here is his advice on how to make them. "Enlist the aid of a few famous photographers or artists; you'll find their work in magazine ads. The picture of several ducks in flight is ideal for introducing a hunting film, and numerous other possibilities can also be found in ads.

"Some scenes will have to be trimmed to fit your titler frame. As most frames are open at each end, just trim to fit vertically. Leave the scene long, that's the way to get animation. Pasting the scenes on very light cardboard will help eliminate need of that "third hand" all photographers dream about.

"In most cases you can get your lettering right off the ads too. Secure a thin sheet of glass—something from a photo frame is swell—

and place it over the lettering. By using poster color and a speedball type pen or a small brush, you should be able to do a creditable job of copying a title onto the glass.

"Now take the scene and place it in the titler frame. Slide it through a couple of times, slowly, so you can get the feel of running it smoothly. Next, place the glass with the lettering, in front of the field of view and center it properly. This leaves a small space between the letters and the background—reason for which you will see shortly. Turn on your lights and look closely; see the shadows behind the letters? If they aren't plain enough, vary the lights up or down—up and to the left usually gives the best shadow rendition. One light will give nicer shadow detail, or use two lights on one side of the titler. You'll want to experiment here anyway.

"Camera loaded—check everything once more, then push the button. The camera whirs, slowly push the scene through the frame—slowly—holding the glass in place (that third hand comes in here, if you don't want to build a rack for the glass) and presto, you have an animated title shot.

"Possibilities are numberless. Color ads lend themselves admirably to either color or black and white film. Give it the works. Later you'll be flipping the glass with the lettering, into place as the camera grinds—adding another touch of the professional to your film."



Photos by Louis Ell

hand when working with a fire scene.

(b) Take a scene of the fire having a dark central area on which a title may be superimposed by double-exposure. Set this film aside undeveloped. When you are ready to make a title, rewind the original film in complete darkness and again place it in the camera. Now photograph the title scene as described under (a) above or use a black card on which the words are lettered in white, taking care to compose the words so that they do not run over into light parts of the scene.

(c) Take a close-up of a big coil of hose. Your neighborhood firehouse might oblige you some day when they are re-coiling hose after it is drained following its use at a fire. Now superimpose, by double-exposure, a title card or other suitable wording.

DOUBLE EXPOSING

If your camera has no rewind you can still make double exposures for titling, in your own camera. After placing a new roll of film in the camera, set the footage counter at 0. At the end of each scene, record, in a small notebook, the footage number shown on the indicator, also the subject matter of the scene.

In addition, make a small sketch showing where the principal characters stood in the scene or where a central area may be used for double-exposing another image such as a title.

In complete darkness rewind the roll of film. Film-rewinds are a great convenience for this task, but some workers are able to do a good rewind job by hand. To avoid leaving finger marks on the film, be sure that your hands are clean and dry.

The next step is to reload the film in the camera and set the footage indicator at 0. Then place a light tight cap over the lens. (Or a piece of black cardboard may be held flush over the lens mount edges.) Now run the film through the camera until the footage indicator reaches the film-footage number of the scene just preceding the one which you wish to double-expose.

Now you can shoot the title, being sure to stop at the next footage number recorded in your notebook. After the lens-cap or other opaque lens covering is replaced the rest of the film is run through the camera. The film is now ready for processing. Plenty of exposure on the title will assure sufficient contrast, in fact twice normal exposure will do no serious harm.

KODACHROME AND CONFETTI

A swell title for Kodachrome consists of the following plan: Obtain some confetti from a party novelty store or from the stationery department of a general store. Lay out this confetti so that it covers evenly a piece of cardboard on which the letters of your title have been outlined in light pencil. With a camel's hair brush, remove the confetti that does not lay within the lines.

This makes an attractive title for a film dealing with a celebration of the Mardi Gras type. To give this title animation, here are two suggestions, both of them based on running the film in reverse in the camera. If your camera will run faster than normal speed, the resulting action will appear smoother on the screen.

(1) Place the camera upside down so that the film is passing the subject from bottom to top instead of from top to bottom. An electric fan is turned on, but facing away from the title. The camera should be nearly overhead with the confetti title lying in a horizontal position. Start the camera and run it for ten seconds. Now, with the camera still running, turn the fan gently so that the air stream blows all the confetti away.

When the film is projected, the effect on the screen will be bits of confetti appearing from the top and side and depositing themselves to form the letters of the title. Using a fairly dark color for the title card reduces glare on the eyes when reading this title.

(2) Prepare the confetti title as above and have an added supply of confetti in a scoop made of cardboard. Run the cam-

era in reverse, or place the camera upside down on a tripod. Run the film for ten seconds and with the camera still running, sprinkle confetti from the scoop upon the title until the area is completely covered.

When the film has been processed, the effect on the screen will be that all the confetti except that which forms the title rises as if by magic from the board, to leave only the confetti which forms the letters of the title.

If you desire a title made of confetti letters, without any animation, you can use the following method: Lay out the letters carefully on the title card with a hard pencil. Coat the letter surface with good glue such as LePage's. While the glue is still wet, shake confetti on the title board so that it sticks to the glued area. Additional confetti may be pressed into the glue with the finger tips at points where it has failed to adhere.

To run the camera upside down, make an oblong wooden or metal frame which may be attached to the tripod with a regular tripod screw. Place a stove bolt with washers in the top side of this frame so that the camera may be mounted top downward. Glue a piece of felt around a screw hole so that the camera base will rest against the felt.

OLD PHONOGRAPH AIDS TITLE WORK

A turn-table from an old record player makes an excellent revolving platform for title work. Two suggestions for using this platform are as follows: (1) A title card is prepared with titles lettered on both sides. One side has the name of the production and the other has the introductory title telling where the film was made and setting the mood of the production.

Place the title card on a turn-table so that the main title is facing the camera. Run the camera five seconds. Then, with the camera still running, slowly revolve the turn-table so that the title on the reverse side is brought into full view. If it is possible to do so with your equipment, fade out the second title after allowing four-tenths of a foot of film for each word in the title. Wind back your

film and fade in the first scene of your picture. This gives you a "cross-dissolve" or merging of the title with the first scene.

For the second turn-table idea, set up the title card with the main title on it. Behind this build a miniature scene, using a toy castle or other toy buildings, or miniature trees and rocks, or animals, in short, whatever suits the subject matter of your film.

Film the production title for five seconds then give the turn-table a half turn with the camera running. Now expose several feet of film on the miniature set. You may be able to fade in a title over the miniature scene, or otherwise bridge the title into the rest of your production.

To receive a smooth, slow action in the turn-table, wrap a tape measure around the edge and draw as slowly and evenly as you possibly can.

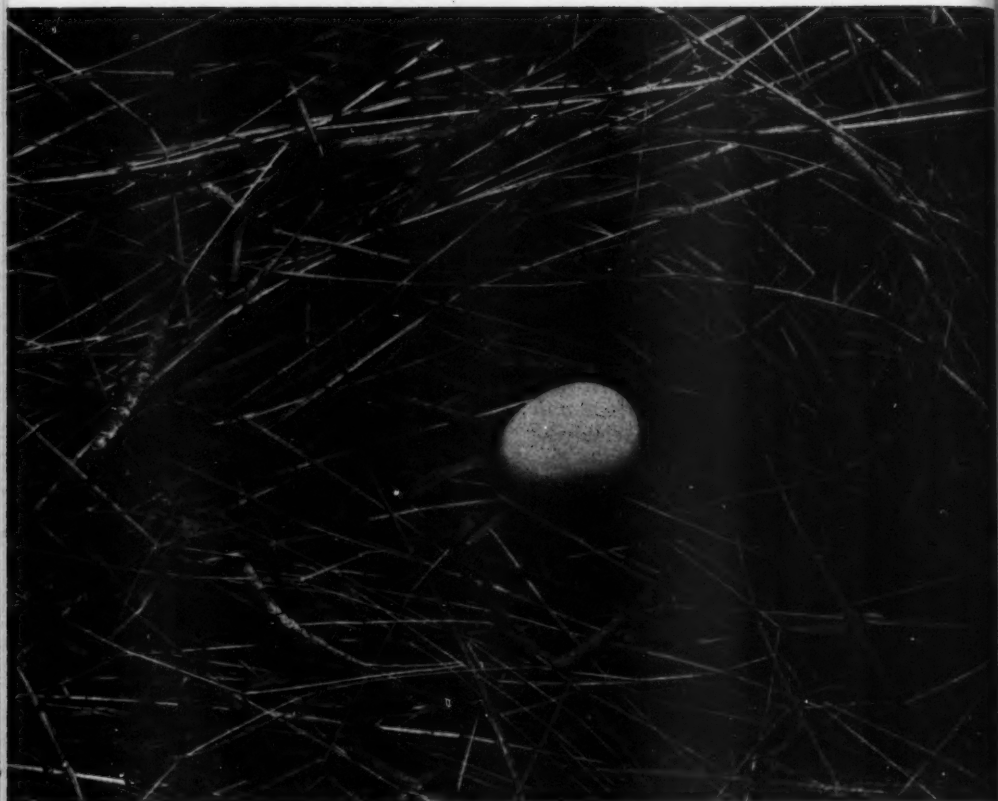


FADING WITH LIGHT CONTROLS

Remember that even if you have no dissolving device on your movie camera, you can get a reasonably satisfactory fade-in or fade-out on a title by one of two methods: (a) Place your two title lights on caster stands. Have two assistants roll them away again, according to the effect desired. Or (b) hook a rheostat into the light line feeding your title lights. Remember that a rheostat accumulates a lot of heat in the resistance elements when left on for a considerable length of time, so use it sparingly.

A rheostat, obtainable from an electrical supply company, and also to be found at a theatrical supply house, will have many uses around your cinema table. To name a few, sunset and sunrise effects (which are much easier to shoot in mini-

(Continued on page 145)



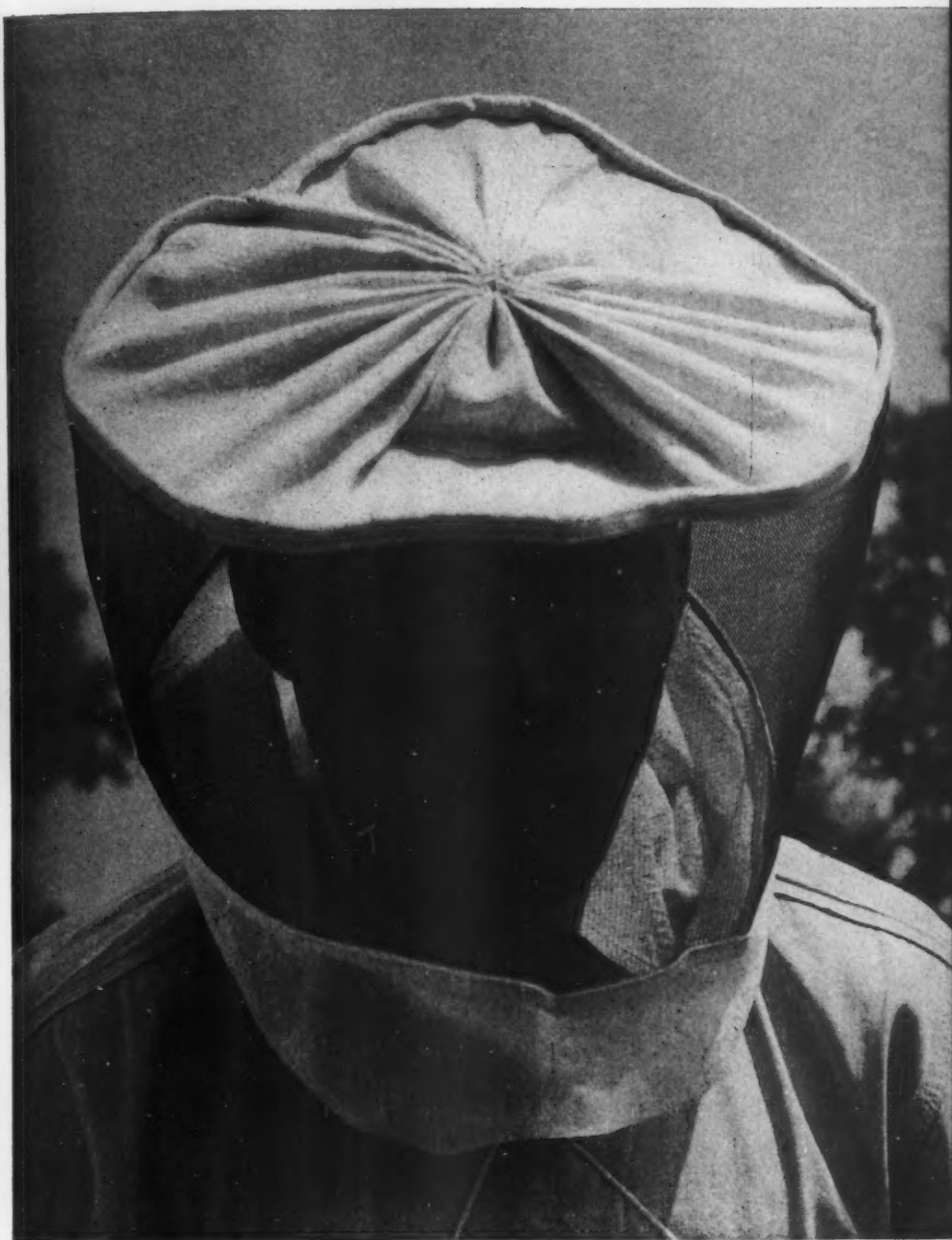
The Eligibility of the Egg

Did you think that all eggs were alike? . . . Look again at its architecture.

4 PICTURES

by

Aaron Siskind



The Beekeeper



Something about cats:

"Of all the farm animals, only the cat has come from the jungle."

"I have a Little Panzer" →





Let the Child Emote!

By JACK HOWARD

Illustrations by the Author

TO INDUCE a young child to assume an expression not in accordance with his mood of the moment is a tedious job. Most photographers, after failing to obtain the expressions they want by means of suggestion and demonstration, try to make the best of what they consider to be a bad situation.

But is it such a bad situation? Perhaps the emotionally disturbed child who presents to the photographer a clouded brow, brimming eyes, and a tear-streaked face offers better picture taking opportunities than he would in his more serene moments. There may even be certain advantages to be found in these expressions which could never be obtained in conventional poses. Let us analyze the results obtained in a session with a child who was permitted to have her own way—after the photographer found out he couldn't have his . . .

The four accompanying poses illustrate four stages of an emotional expression in a child three years of age. The child was brought to the studio by her mother who was enthusiastic over the prospects of obtaining a good likeness of her daughter. Unfortunately, this enthusiasm was not shared by the child who immediately let it be known that she felt thumbs-down on the whole situation. Neither

threats nor promises could elicit a more presentable expression from her for the simple reason that she didn't care what her mother and the photographer wanted—she wanted to cry.

A situation of this sort would be discouraging were it not for the fact that every good photographer who works with children eventually becomes an amateur

STAGE TWO. It is characteristic of emitted expressions that changes in different parts of the face reveal simultaneously, yet independently, each phase of transition from one emotion to another. If, in these four pictures, everything except the girl's brow, eyes, or mouth were blocked out, couldn't you fathom her emotions by any one of these features alone?



STAGE ONE. The difference between an "elicited" expression and an "emitted" expression is often the difference between a posed-looking picture and one with smashing emotional impact. The clouded brow, downcast eyes, spilling tears and slightly turned body of this three-year-old girl (left) reveal a depth of graphic feeling impossible to duplicate in elicited expressions.

expert in child psychology. He learns, for instance, that an expression of tears may be good for both the child and himself. For him it may provide unusual picture-making opportunities; for the child it is nature's way of releasing emotional tension. In all probability the child will be willing to cooperate once he has cleared the air with his own private thunderstorm. Moreover, the photographer who is accustomed to working with children is fully aware that "emitted" expressions have several advantages over "elicited" expressions. An emitted expression is one which the child assumes of his own volition without adult direction. An elicited expression is one called forth by adult instructions—the photographer's plea to "look at the birdie," for example.

Of the two, the emitted response is

far more likely to reflect spontaneous expressions and poses which are characteristic of the child than are the elicited expressions. This is because emitted expressions "well up" within the child and are free-flowing, giving graphic vent to his emotions of the moment. It is the supreme naturalness of pictures made of emitted expressions that gives them their emotional impact. No photographer, regardless of how skilled, can hope to elicit such a range of expressions in a child as those which are "made to order" when the child is emitting. So, although it is never advisable for a photographer to make a child cry just for the sake of obtaining emotion-laden pictures, if the child is already crying there is no reason why he should pass up an opportunity to produce distinctive, forceful pictures.

STAGE THREE. The thundershower is over; displeasure is giving way to curiosity. Notice how the hand reinforces the facial expression which, in turn, reveals the child's hesitant, growing confidence in her surroundings.

STAGE FOUR. Now even the hesitancy has evaporated. The brow is smooth, the eyes are clear, the lips are normal, and the body is presented at right angles to the line of vision. This is an alert, happy child, ready to cooperate!



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Mountains are Colorful

... and Kodak Research has given you five ways
to keep such picture-making opportunities in color

BEHIND THE RESULTS you get when you click a shutter on color film stands an important Kodak research program. Kodak has worked incessantly toward color photography in a variety of convenient forms.

Today the results of this program reach you in five distinct ways. There's one or more for every camera owner. Now is the time to explore their exciting possibilities.

- 1 Kodachrome "stills" for projection ... made with a miniature camera
- 2 Kodachrome Prints (formerly Minicolor Prints) ... from miniature Kodachrome transparencies
- 3 Kodachrome movies ... with an 8mm. or 16mm. movie camera
- 4 Kodachrome Professional Prints (formerly Kotavachrome Prints) ... from "stills" on Kodachrome sheet film
- 5 Kodacolor snapshots on paper ... with an ordinary roll-film camera

Kodak

BULLETINS

NEWS OF KODAK PLANS AND PRODUCTS

Color Trend—Most significant trend of the year, in color, is the color print boom.

So important is this trend that Kodak is vastly expanding its Color Print Service capacity.

It's evident that most users of Kodachrome are now supplementing their transparencies with color prints that can be displayed continuously on walls, table, or mantel, placed in albums, or viewed conveniently when extracted from faithful pocket wallets.

Already, Kodak is receiving orders for Kodachrome Prints that are destined to be used as Christmas gifts. It may be early to be thinking of Christmas—but, obviously, some wise color users are taking no chances on a jam of holiday orders. Kodachrome Prints are also being used as gifts for other occasions, seasonal and nonseasonal... and the smaller sizes are being used in greeting and announcement cards.

Multiple-print orders have been on the increase ever since prices of Kodachrome Prints were reduced several months ago. The 3X Kodachrome Print was an instantaneous success because of its good size and attractive price. In the larger sizes, orders for two or more prints at the same time from the same transparency are now frequent—with the price

lower for the second and successive prints.

Right now, look over your color transparencies and color prints—and see what prints you need to add. Kodak's print capacity is ample now, but demand may outstrip it before many months are gone.

For your protection, by the way, Kodak now stamps on the back of each Kodachrome Print the statement, "This is a Kodachrome Print made by Eastman Kodak Company," and the date. Make sure your prints bear this seal of authenticity.

3X Frames—Attractive frames in light-brown natural-finish wood are now available for the new 3X size of Kodachrome Prints. There are two types—one for horizontal prints, and one for vertical. These are "stand-up" frames, for use on table, desk, or mantel; the top of each frame is closed, and prints are readily slipped into position through a concealed slot in the base.

Pamphlets—A revision of the Kodak pamphlet, "Notes on Tropical Photography," is now avail-

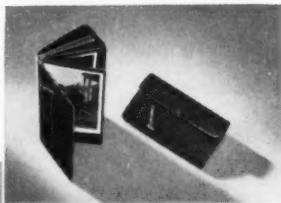
able. It covers sources of trouble, care of equipment, precautions in exposure, processing, and storage under tropical conditions. Also available, and important to the serious worker in color, is the Kodak pamphlet, "Color as Seen and Photographed," which deals in considerable detail with color perception, the effect of colored objects surrounding a subject, and variations in quality of light. It's an older publication, but basic. Both free of charge, from Kodak's Sales Service Division.

Album Time—Now that most of the summer's pictures have been made, it's time to consider their presentation. Kodak has ready for you a varied group of albums, from which you will be able to select a type that presents your shots at their best.

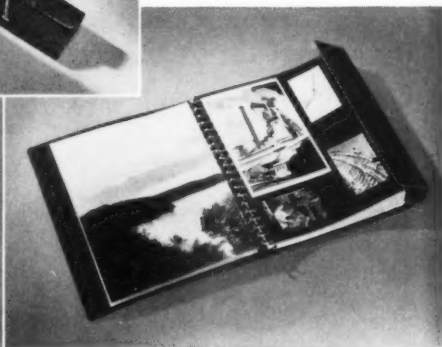
There's the Assembly Album, with wire binding so that the book opens fully and pages lie flat... the Cavalcade Album, with attractive padded cover in navy blue, khaki, maroon, or brown, and with two-tone laces and 40 gray leaves... the Juno Album, a dignified loose-leaf book available in four sizes... the Kodak Album and Library Album, luxuriously made with genuine leather covers or De Luxe covers, and black leaves.

For big prints and full protection of all sizes of prints, there's the Protecto Album, with transparent acetate sleeves into which prints are slipped; it has metal binder rings, and a Levant-grained simulated leather cover... Also, the Kodak Protecto Traveler's Album, with a cover flap that folds over and fastens

New Protecto Pocket Case



New Kodak Albums



The Protecto Album

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Idle Idyl

THE lazy, leisurely mood of summer's end is perfectly captured in this charming late-afternoon picture by Bessie Callaway, La Grange, Georgia. And it's done with the simplest materials: trees, sky, and two small boys making good use of their fast-fading vacation time. The sturdy verticals of the trees lend stability to the composition, long shadows on the ground provide a strong base, and the cleanly silhouetted figures re-emphasize an old rule—that interest centers where the strongest highlight and the strongest shadow are juxtaposed. Made with a $2\frac{1}{4} \times 2\frac{1}{4}$ reflex, $1/50$ second at $f/8$, on Kodak Panatomic-X Film. Reproduction print on Kodabromide F.

with snap-button fasteners . . . the Protecto Pocket Case, for Kodachrome, Kodacolor, or black-and-white prints to be carried with you . . . and the Tallyho Album, 50 pages, cover in black,

green, or maroon, and three sizes, all moderately priced.

In this group, you're pretty sure to find exactly the album you want. Your Kodak dealer will show them to you.

See your Kodak dealer

KODAK products are sold through Kodak dealers, any of whom will be glad to complete descriptions of Kodak products which are mentioned in these pages. Usually, too, they will give you opportunity for firsthand inspection of the advertised items.

In matters of general photographic information your Kodak dealer will be found to be well and soundly informed.

Kodak



The Mirage and

In popular thinking, the mirage symbolizes the false, the illusion . . . while the rainbow is a symbol of hope and promise.

But the optical scientist, endeavoring to create a camera lens of greater speed and truthfulness, has the reverse view: the mirage is his servant, the rainbow his tricky adversary.

For in optical glass, it is attainment of higher refraction of light . . . greater "mirage effect" . . . *without increase of dispersion or "rainbow effect"* that leads to a finer lens — and greater pictures.

To achieve this in higher degree

than ever before possible, Kodak scientists found it necessary to revolutionize the manufacture of optical glass. They worked out new formulas utilizing rare elements . . . tantalum, tungsten, lanthanum . . . and in many cases entirely discarded sand—for centuries the indispensable ingredient of all glass.

Lenses incorporating optical elements of the new Kodak glass are now serving science and industry . . . and as time goes on, "rare element" lenses on many a fine Kodak will also serve the demands of the perfectionist in human-interest photography.

**Serving
human progress
through
photography**

EASTMAN KODAK COMPANY, Rochester, 4, N. Y.

Kodak



AERIAL PHOTOGRAPHY FOR FUN AND PROFIT

BY E. B. VAN WINKLE

"MALABAR"—THE HOME OF LOUIS BROMFIELD

JOE MUNROE

IF YOU LIKE TO FLY, aerial photography is fun and definitely can be profitable. No elaborate or special equipment is necessary and only a fundamental knowledge of photography is needed to insure success in this field. Usually, small flivver planes are the cheapest to rent and prove most valuable for all general types of sky shots. The demand for aerial views from home owners, real estate men and companies in your locality should be fairly constant the year around.

But let us start from the beginning and determine the kind of equipment we need. Miniatures are the least satisfactory since a certain amount of detail is lost when enlarging the small negative. Detail is what most purchasers of aerial views demand. Better to have a good sized negative such as you get with the Speed Graphic . . . $3\frac{3}{4} \times 4\frac{1}{4}$ or the 4×5 . I have seen the twin lens reflex used for

aerials but you may run into viewfinder difficulties here. Lenses at least F/4.5 or faster and shutter speeds $1/400$ th or $1/500$ th of a second are essential. My average shots are usually taken from an altitude of 500 feet at which height it is next to impossible to stop motion with shutter speeds of much less than $1/400$. This means that unless the day is unusually bright, the aperture on your lens should be set at a large stop. Fast panchromatic film will give good results.

Contrary to the general belief, I have not found that a filter is necessary for all aerial shots. On absolutely clear days its value is limited, but if there is a haze of any sort a K-2 *will* work wonders and preserve that clarity and detail so essential in airviews. So it's best to equip yourself with one of these. Of course, if you are out for more dramatic shots of other planes against clouds, etc., an A



AERIALS of farms may prove valuable to the progressive farmer, such as this orchard layout photographed by Joe Munroe.

(red) filter will give wonderful results. Don't forget a sunshade. This is important as your lens will pick up all sorts of reflections from the plane's wings and structural surfaces.

By using a light plane such as a Piper Cub, Taylorcraft or an Aeronca, five things are accomplished: (1) Your costs of rental are reduced to a minimum (\$10.00 an hour is a fair average); (2) The utmost in visibility is afforded because these planes are high wing monoplanes (3) Their low speed (usually 70-90 miles per hour) reduces the need for high shutter speeds and/or large apertures; (4) Their maneuverability makes it much easier and quicker to secure several aerial shots of a location; (5) Because of their construction, you do not have to lean out into the slipstream to get a good view of the property—you can shoot right from the cockpit which eliminates the necessity for any bellows shield. Furthermore, conversation with the pilot is very easy which is important when you are trying to instruct him how to approach the house or the land you wish to photograph.

Once in the air, the problem of exposure arises. All my exposures are based on meter readings which give far better results than any guesswork on my part. Be sure that your meter is pointed directly at the earth and does not catch any re-

flections from the plane's surfaces. Since all my film is developed in 777, I shoot at two stops larger than the meter indicates to allow for the decrease in speed which most fine grain developers impart to a film.

Good definition is a must, so *don't* for any reason rest your camera on any part of the plane. If you do, the vibration of the engine will be transmitted through the fuselage to your camera and the resultant pictures will be horrible to behold! Grasp your camera firmly with both hands at the same time holding it tightly against your face. By doing this, most of the vibration will be absorbed by your body and clear pictures will result.

Generally, the most satisfactory pictures of houses and buildings are oblique shots taken at low altitudes. You will find that most home owners and real estate men prefer this type of picture because they show more of the house and are more pictorial. On the other hand, vertical shots are often effective when your customer wants to show the area, scope and boundaries of a certain property. Determine before you fly what your client's problems or desires are, and then shoot from the angle which will give the best results. Very high altitude shots to encompass a large area are more difficult and usually require a long focal length lens—somewhat beyond the means of the average amateur. One word of caution—be sure when taking vertical pictures that your safety belt is fastened securely. When the pilot is doing a vertical bank and you're concentrating on lining up the picture in your finder, you won't find much time to concentrate on the problem of staying in the plane!

Use a fine grain developer—especially so if you are using a camera with a small film size. Most of my customers seem to prefer 11x14 enlargements and to make pictures of this size, which will retain all the detail and sharpness necessary, requires the utmost care in developing and the use of a slow working developer. Glossy enlargements are generally the

most satisfactory for aerial views.

Customers are really easy to find. First, take a few shots, enlarge and mount them and approach the first home owner you can think of who owns a home with at least a little land around it. Your pictures themselves will usually sell him. If he is still hesitant, describe the value of having such a complete picture showing all his property for insurance purposes and for use in any future claims, boundary disputes, landscaping, future construction, etc.

Real estate men are very enthusiastic about air views, and if your pictures are good, they will usually recommend to all their clients with sizable property to sell that they order aerial photographs from you. Because air views immediately show the size, shape, boundaries and adjacent

land to a property, they save the brokers hours of time and trouble usually taken in describing and driving to a home or piece of land they are offering for sale. For these reasons alone, they are extremely grateful. Companies with large factory buildings and resorts in the country are good prospects. But don't wait for a definite assignment, try some aerials on speculation.

In conclusion, one word about the prices you should charge for your work. They can only be based on your total costs, prices offered by any competitor in the neighborhood and the amount you are willing to accept as net profit—all of which is up to you to decide. But whatever figure you arrive at, you are bound to get a lot of fun and profit from aerial photography.

A NEW TYPE of picture for the homeowner. Taken by E. B. Van Winkle from an altitude of 500 feet, this oblique shows the house and surrounding property to advantage. In addition to its pictorial interest, this kind of picture is valuable to owners because it serves as a readable map and is of great convenience for landscape planning. Super xx film, K2 filter, F4.5 at 1/300.





AN ITINERANT sidewalk photographer who set up business on a New Orleans street corner, seemed like good subject material to free-lance photographer Gladys Relyea. She was right in surmising that the picture would sell. MINICAM's picture buyer can prove it . . .

My itchin' feet

by Gladys Relyea

Have you ever wanted to try freelance photography full time? Gladys Relyea is right in the midst of this adventure

THOUGH I'm not long out of the Women's Army Corps, it is not "my achin' back" that bothers me, it is my "itchin feet." That's why I've made up my mind to see the world through a camera lens and to try to earn my living while doing it. It is four months, 4000 miles, and quite a few checks and heart-aches after my discharge from the WAC's that I write this. So far my photographic career has been an exciting, funny, tragic, and mildly remunerative undertaking.

During the first and second months, my chief difficulties were with mechanical details. Slowly I grew accustomed to a 9x 12 Zeiss Miroflex after years of using only a Leica and an Ikoflex II. The first eight Kodachromes came back yellow—I'd put the film in backwards. Then, at first, I used exposures of 1/25 and 1/35 and soon found that at these speeds only one plane of the picture would be sharp. For greater depth of field I was forced to use slower speeds. That made a strong tripod and careful meter readings necessary.

The third month, October, was in reality the first in which I got down to the business of actual photography. By that time, I could take my attention from equipment and put it on producing pictures. The gods which favor photographers with clear blue skies finally decided to give me a chance to show what my Miroflex could do with fall foliage in Connecticut. Two weeks later, Mr. Leon Daniel of *Pix, Inc.*, and Ralph McGinnis, Editor of *Farm Quarterly* bought three of these Kodachromes, the first color sales of my new career.

On the ninth day of the fourth month, I left New England for the South "with a grim determination and a sense of sweet elation," not to mention a car jammed to the windows with photographic equipment, clothing, blankets, typewriter, radio, etc. The first two weeks through New Jersey, Pennsylvania, Virginia, and North Carolina were practically continuous rain. One dismal afternoon in a little town in South Carolina, I spent a few hours writing a short article on the trials and tribulations of a Tourist Home proprietor. It was sold the first time out (*The Woman*, June, 1946—Ed.) so even rain was not an entire misfortune. Since then, I have made it a practice to do clerical work and writing on rainy days and at night, leaving every clear day free for picture-taking.

The fifth month brought me to Florida with its numerous beauties and activities, and here I shall stay for a time. Here I have made pleasant and profitable local contacts and have discovered plenty of marketable picture material.

WHAT have I learned during these first difficult months? First, and most outstanding is the fact that a photographic-writing career is still truly American in its freedom of opportunity and in its lack of political and pressure-group restraints. Nowhere have I been made to feel that as a newcomer and possible future competitor I was unwelcome. Everywhere, heads of photo agencies, editors, writers, and photographers have given me their time and expert advice.



GLADYS RELYEA, like most Northerners, could not resist making pictures of delightful little pickaninnys and she made quite a collection of similar shots. From the commercial standpoint, they are hard to sell because the storytelling qualities are generally much too vague.

Last September when I told Mr. Arthur Brackman of *Free Lance Photographer's Guild*, what I hoped to do, he gave me his blessing and this advice: "Don't be discouraged if you make no sales for the first six months. You must allow for a seasonal lag as well as for a finding-yourself period. Study good paintings and books on composition and color theory. Steep yourself in art theory and practice, then apply what you learn to color photography."

Mr. Leon Daniel of *Pix, Inc.*, said, just before I left on this first freelance trip: "Keep yourself informed on the sort of pictures that are being used in the magazines. Study them carefully. Figure out why they were chosen from among dozens of pictures. Keep trying to make each picture you take tell a story of some kind whether it is a color shot or a black and white."

Mrs. Helen M. Madden of *Trains Magazine* wrote after buying two Kodachromes. "We are interested in either black and white or color. Our present plans call for the use of at least two color pictures a month and since we are in greater need of this type, we would be most interested in Kodachromes. However, we're always on the lookout for good black and white pictures to keep on file for future use. Good luck and we'll expect to hear from you soon."

Newspapers and radio with their talk of murder, theft, fraud, juvenile delinquency, and national and international misdeeds may be right about the state of the world but as a traveling photographer I have never encountered such conditions or the people which make them. Instead, I have been encompassed with friendliness, and kindness wherever I have gone.

The first four months I averaged only 70 to 75 dollars per month. By changing my field to general commercial photography locally, I could double this immediately. However, I feel that the file of pictures and picture-stories I am



FOR THE FREE-LANCE photographer, this picture of a workman trundling bananas out of a railroad car has definite possibilities. A series of marketing and transportation pictures might sell to grocery trade journals, transportation companies, or to fruit grower's publications. If the pictures contained enough human interest or timeliness, photo sections in newspapers would constitute a good potential market for the free-lancer.

gradually building up, plus the experience I am gaining both in writing and photography, is worth temporary loss. I figure that I can count on at least 100 dollars per month the next 2 months; more later.

Tips Learned the Hard Way

If you want to do outdoor action in color, insist upon a lens that will allow at least 1/25 second exposures at apertures small enough to get all-over sharpness. A fuzzy background in most color shots is a definite disadvantage, and color film with its low speed and its narrow latitude requires special planning ahead. With black and white film and its usual high speed, this problem is much less important.

Keep your complete equipment as light in weight and as simple as possible if you will work alone. Unless you are a top

photographer and can afford an assistant to carry things and arrange lights, etc., you will find that even so crass a factor as physical exhaustion will interfere with your ability to think out and carry through an assignment. My full working load (for outdoor photography only) weighs 18 pounds: Zeiss Ikonflex II with Tessar 3.5 lens giving 12-2 1/4 inch negatives on Ansco Supreme or Ansco daylight color; Zeiss Miroflex with Tessar 4.5 lens using 9x12cm. daylight Kodachrome; a strong tripod which fits both cameras; a carryall bag which holds model release forms, notebook, pencil, Weston Master Exposure Meter, 4 boxes of 120 film. For the Ikonflex, 1 red and 1 medium green filters, plus a rectangular sky filter. Also useful are two Proxar (2x) auxiliary lenses and the inevitable sunshade. For the Miro-



flex, there is a Proxar lens (2x), shade and haze filter, and 12 cutfilm holders loaded with daylight 9x12 cm. Kodachrome.

A Trick Filter for Kodies

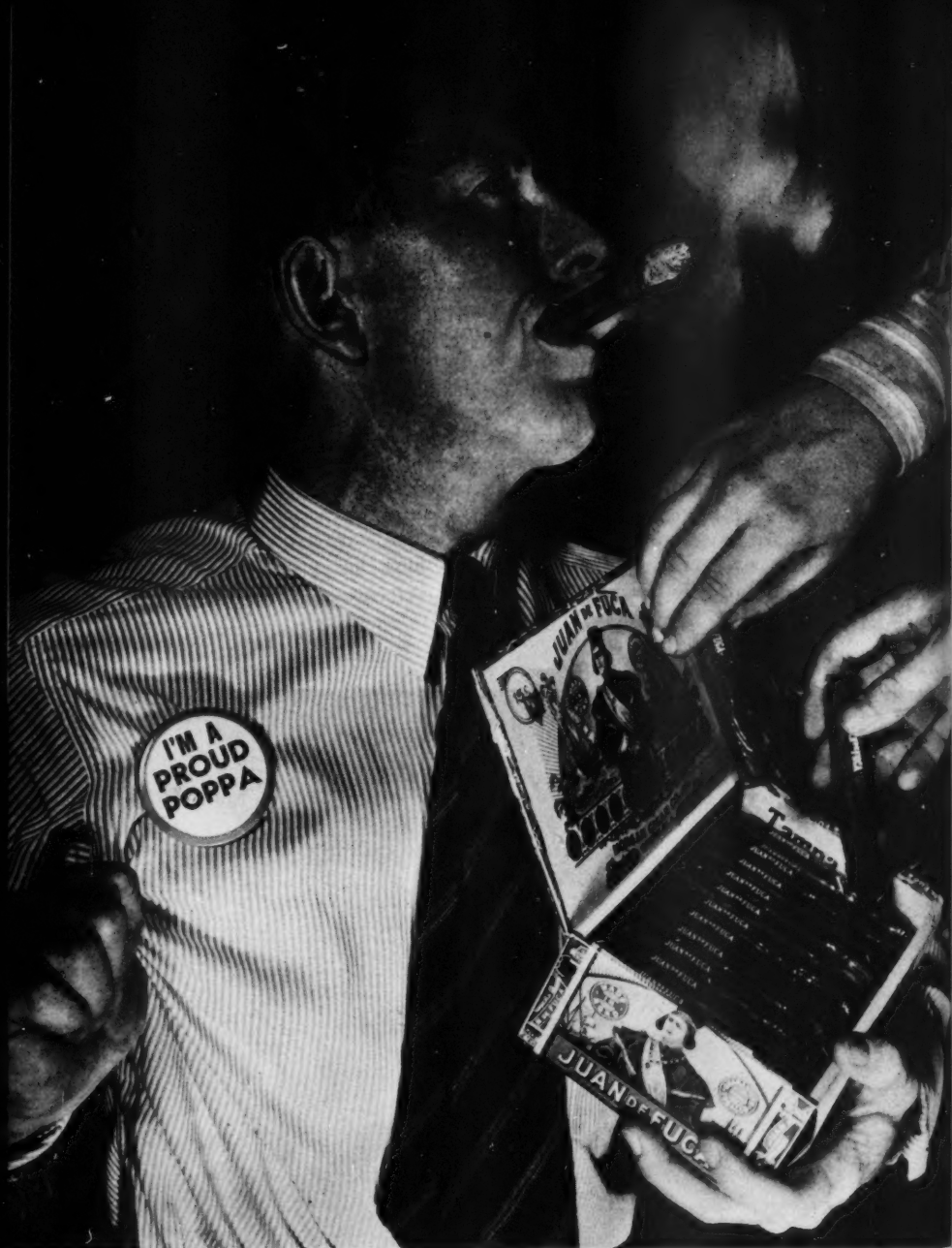
It is sometimes queer how one decides to add a certain piece of equipment to one's supply. In December, for instance, I was looking for color scenics at historic old St. Augustine, Florida. Rain prevented color so I decided to renew some WAC acquaintances at nearby Daytona Beach where I had taken basic training. Through one of these friends, I was given an introduction to Zora Neale Hurston, the famous negro novelist and Guggenheim fellow. I found her on a houseboat in the harbor, hard at work on her eighth novel. We had a stimulating (to me, anyway) talk and naturally I wanted pic-

tures to accompany a personality sketch I immediately decided to write. Because it was drizzling from a bright overcast sky, I used no filter on my Ikoflex with my favorite Ansco Supreme film. Later, when I saw the prints I realized that I had failed completely. Even dodging did little to help the blank sky and fuzzy foreground objects.

I went to my photographic dealer, and he came through with the solution—a rectangular glass filter carefully graduated from K2 yellow at one end to clear glass at the other, and equipped with a metal holder through which I could slide or turn the filter across the lens according to which part of the scene I wanted to hold back or give extra exposure. This rather clumsy filter has proved to be a very

(Continued on page 140)





"PROUD PAPA" won first prize in a contest conducted by the National Cigar Institute in 1944. A new truant officer was appointed for San Jose and Mike was having a hard time getting a new "angle" on him. Learning that in two days the officer would become a proud parent, Mike cooked up a "nervous father" picture which won the commendation of his editors.

Michael Conversa

MINICAM COVER CONTEST WINNER

By Jack Wright

MICHAEL CONVERSA is a photographer for the San Jose *Mercury Herald* out in Californ-i-ay. Shortly before his marriage, a few years ago, his companions on the newspaper started by-lining his pictures "Photo by 'Legs' Conversa," giving the impression that he had a penchant for pin-up art. Mike says it mighty near wrecked his romance.

As a kid, Mike studied with the best violin teachers his parents could find. Later he quit San Jose State College to take a job in a ship's orchestra on a luxury liner. According to Michael it was pretty fine work but watching tourists flutter about with cameras had kindled his interest in photography, so at the end of one of his voyages he was faced with the choice of renewing his contract with the steamship company or taking a job as apprentice photographer on the *Mercury Herald*. "I finally decided on photography," Conversa says, "even though it meant no more ocean voyages and considerably less money — at least at the start. I have never been sorry."

Mike's first assignment was to cover a train wreck in the Livermore Pass, 40 miles from San Jose. A trifle nervously, he set out at 2 o'clock in the morning in a rickety old Chevrolet. Arriving at the scene long before daylight, with an ancient Graflex and no flash equipment, he waited in a cold, drizzling rain until morning. By the "dawn's early light" he grabbed a set of pictures which his editors thought well enough of to use as a full page.

The following week Mike got a real scare. It was during prohibition days and a party of officers had raided a still. Two of the bootleggers had escaped and the officers went into hiding, figuring the boot-

leggers would come back. Into this situation Mike rattled up in his old car, blissfully unaware that ten men, all heavily armed, had him covered with guns and pistols. It was not until a gun was shoved against his ribs and he had been identified that he realized how ticklish a position he had been in. "If one of those guys had been the least bit trigger happy I wouldn't be around today," Mike says.

One of Conversa's best and most successful pictures is entitled: "What Does He See In Her?" It won first prize in a nationwide news picture contest conducted by the Associated Press and captured the sweepstakes cup in a contest held by the California Newspaper Publishers Association. The picture was taken during the "Trail Days" celebration at Los Gatos,

"WHAT DOES HE SEE IN HER?"



California, when all the inhabitants turn out in cowboy costume. Mike had an idea of getting a picture of two little girls kissing a little boy. One little girl got into the spirit of the thing immediately but the other girl started to cry. Mike clicked the shutter at exactly the right instant.

Another of Michael's most successful pictures has been "Rat Eye View," which won honorable in the annual Fifty Print Contest of the University of Missouri. When exhibited as part of the Photographic Society of America's annual salon it was declared by Victor Keppler to be "the best picture in the show." Mike was sent out to photograph a particularly tough neighborhood cat which had just hung up a record by killing 33 large rats and 5 snakes. Mike chipped a hole in a piece of plaster board which he had been using as a background. He put the cat behind the board, with his mistress in front hold-

ing an enticing piece of liver. At the right instant Mike snapped the shutter and got Puss with a particularly sinister expression on her puss. One bulb on an extension was used, being on the same side of the board as the cat.

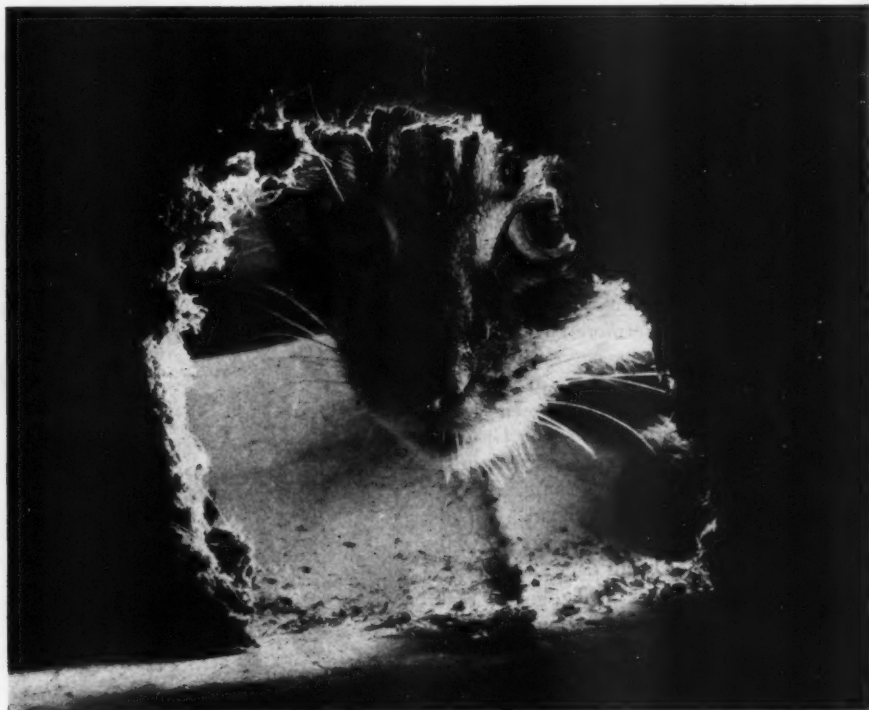
Mike does a little advertising photography. A layout of his pictures appeared in Life Magazine as a full page advertisement for the California Prune and Apricot Growers Association. The magazine, "Advertising and Selling" said of this ad: "It will probably top all cereal ads for 1945."

One of the pictures which Mike enjoyed most in taking is "Gelandesprung," a back-lighted skiing photograph snapped on a gorgeous snowy day in the High Sierras. On that trip Mike got pictures which lasted the society and sports departments for weeks. "Gelandesprung" won

(Continued on page 142)

RAT EYE VIEW

MICHAEL CONVERSA



take a tip from the comics

Continuity Comes First



SNAP-SHOOTING with your movie camera; filming a scene here and a scene there, is all right if you simply want a record of events. But for real fun, and so your pictures may be enjoyed by others, they must have continuity.

What is continuity?

Continuity is an arrangement of scenes in sequence. A series of scenes in logical order, arranged so they unfold a situation or a story—however simple.

Every comic strip has continuity. Comic strips are story sketches used to put an idea across. Hollywood movie makers use story sketches as a guide for producing every feature film.

Note that a comic strip starts with an idea . . . Sammy Smart dreams of a delectable soda. This poses a problem. How will he get it? Inspiration! Brother Bill is cozy with Susie in the parlour. He'll

make brother Bill pay blackmail and obtain the necessary money. Likewise the home movie continuity starts with an *idea*. It suggests something to be done; a place to go; a pet to be fed; a summer jaunt to the cottage; a roundup of the family. Or it suggests a problem to be solved and an obstacle to its solution—the salt of every story ever told.

Below is a list of subjects for outside and inside filming, intended to suggest film-worthy ideas for movies, within easy reach of your cine camera.

Select a subject from the list and develop a continuity for it. How about the Family Album? This subject has a broad appeal, and can be filmed both inside and outside.

A lively continuity for the Family Album is developed easily, and story sketches can be used to crystalize the shooting plans.

SUBJECTS FOR HOME MOVIE CONTINUITIES

OUTSIDE

1. Family Movie Album
2. Sports—tennis, golf, baseball, swimming, boating, hunting, etc.
3. Vacation Films
4. Maintaining the Family Car
5. School Days
6. Visit to the Zoo
7. A Day at the Docks
8. Home Movie Educationals (Example: "We Plant a Garden")
9. Through the Garden Gate (Flowers in close-up using Kodachrome)
10. Our City: Prepares for Work; At Work; Recreation
11. Our Pup
12. A Garden Party

INSIDE

1. Family Movie Album
2. Home is a Hazard (accidents that can happen at home)
3. Murder Mystery (close-ups only)
4. Father Bakes a Pie (slapstick)
5. Baby's Bath (educational)
6. Indoor Sports—table tennis, quoits, card game, blind man's bluff, etc.
7. The Hired Girl
8. Filming a Parlour (drama)
9. Screen Test (send it to Hollywood). See article in January Movie Section, page 94.
10. Movie Cook Book (in Kodachrome)
11. Baby's Mischief
12. Bachelor Daddy



ALL MOONSHINE

By CLARENCE PONTING

WARNING TO PURISTS — If you object to control with a capital "C"—flip three pages!

HOW are pictures which appear to have been taken by night and include the moon, really made?

The method of exposing pseudo-moonlight photographs by taking a subject "into the sun" and deliberately under-exposing, has been known from the earliest days of photography. At times a fairly good moonlight representation is achieved, particularly when a large expanse of water is included in the picture and on which the light from the sun makes strong scattered highlights. For nearly all other subjects this contre-jour lighting rarely proves satisfactory.

The objection to all these "into the sun" moonlight effects, is that the sun's disc (which we wish to represent as the real moon), is rendered on an absurdly small scale. With most short focus lenses the sun's disc is little more than a large

dot, whereas the serious worker wants it to be at least $\frac{1}{4}$ in. to $\frac{1}{2}$ in. in diameter in an 8x10 print, and proportionately larger in big exhibition prints.

Obviously, if we wish to produce a picture which appears to have been taken by the light of, and includes the moon, we shall have to consider this to be impossible, and effect a compromise by making such fantasy pictures by daylight. Now we are back once more to the size of the "moon," which will have to be an image of the sun.

There are two methods of getting the sun's disc large enough in the negative to look like the real thing in the exhibition picture. Use a telephoto lens if the negative is a true miniature or take the disc small and blow it up in the process of enlarging.

Forget all about trying to get the whole

thing on one exposure. This is seldom satisfactory, and so separate negatives should be made of the sun while partially obscured by clouds, and a suitable landscape, afterwards wedding the two together in the final picture by means of simple combination printing. You may find the necessary landscapes already in your negative file, and which at the time of taking, were never intended for this purpose. With but one exception none of my negatives were made for the production of moonlight effects.

A landscape negative made when the sun occupies the exact position of the "moon" (which will subsequently be printed in) rings true so far as lighting is concerned, particularly in the highlights, which is the point that really matters in the production of the illusion. With landscape negatives already made, the correct lighting will have to be simulated by means of shading certain portions of the picture during printing, or lowering the



HIGHWAYMAN'S LANE, almost a straight combination print, illustrates the simple type of landscape which will be easiest to improve upon at first. In the original print above a small lane runs out of the picture to the right, spoiling the bend in the road. In the final combination, oil color on the print removed this; shadows of the trees were introduced in the same manner, serving to break up the large uninteresting expanse of white road. Watch for small details such as this, for they often spell the difference between success and failure in the final result.





MACABRE (*opposite*) I consider one of my most successful "moonlight" pictures, probably because it gave me more trouble to make than any others, so far. The skeleton-like effect of the willows standing in flood waters suggested the title. By overprinting and introducing the "moon" and its strong reflection on the water by means of reducing solution applied to the print, an improvement was noted. Still unsatisfied, I made the final print by combining the moon and clouds from the picture above. A third printing was necessary and the negative was inverted and printed over the foreground water area. The same "moon" negative was used for the combination print heading this article.





tones by means of oil pigment, or black-lead, applying this to the print where necessary.

The real secret of success lies in making the negative of the pseudo-moon, in which should be included nicely arranged clouds, of pleasing shape, so that by one printing both clouds and the "moon" can be introduced. The simplest way to obtain these negatives is to photograph the sun early in the morning, or towards evening. Whatever time is chosen, the sun must be high enough in the sky to permit it being printed into the sky portion of another landscape negative without inclusion of the horizon line that may exist in the moon-cloud negative. When possible, use a telephoto, or long focus lens to make these negatives and so avoid the grainy effect that may be produced if the sun has to be blown up from negatives in which the disc is very small.

My own procedure is to use the half combination of a 6-inch convertible Goerz Dagor anastigmat lens, which gives a single lens about 12 inches in focal length. With this the image of the sun is large enough to be enlarged to one-half inch without the appearance of grain, and a "moon" of this size is amply large enough for inclusion in a 12"x15" salon print.

When developing by time and temperature, development time should be half that given for a normal landscape negative. This will produce a thin negative with soft gradations in all parts except the sun's disc which should be perfectly opaque. If it isn't, make it so by means of strong

photo-dye, applied with a finely pointed soft brush to the disc.

The correct time to make an exposure is the moment when the unobscured sun begins to pass into a cloud, or is just about to leave one. When the sun assumes this position it will cease to throw shadows on the landscape. To avoid sun glare when watching for the correct timing of the sun behind a cloud, use a piece of smoked glass, or a rather dense negative.

Having obtained a suitable moon-cloud negative, and being in possession of a landscape with which it can be wedded, the rest is simple combination printing. The landscape negative (in which the sky portion should be opaque, or made so by an application of photo-dye), is then projected to the required size and a test strip made to determine the exposure. This should be about twice that required when making a normal print as for our purpose we require the landscape portion to be on the dark side. Note the position where it is desired to print the "moon" when making the final print, by a black pencil dot on the sensitive side of the paper. All that is then necessary when printing in the moon-cloud negative is to see that the sun's disc centers on the pencil dot. When printing this negative the already recorded landscape must be prevented from being over-printed by shading with a card or cloth. Naturally, before making the combination print, the "moon" negative will be projected to the required area and a test strip made to ascertain the correct ex-

(Continued on page 143)



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MOON-WRACK

CLARENCE PONTING

NOTHING MORE UNLIKELY as a subject for a moonlight picture could be found than that underexposed snapshot on the opposite page. But Ponting again got busy with a cloud negative and the resulting picture above hung at the annual exhibition of the Royal Photographic Society in London. The original negative was first projected and darkened by suitably overexposing the print, after which the cloud negative was combined, the negative removed from the carrier, and the clouds about the edge darkened by additional exposure with the projection light. In this case no "moon" was included in the sky negative so one was painted in with opaque pigment.

BAD BACKGROUNDS



NO



YES

HEAVY DECORATIONS in the left background are so confusing that the subject's eyes and mouth, the identifying features in any portrait, disappear among the bubbles of the carnival pattern. The only good effect this background has is to subdue the oversized hand which has resulted from bad photography. By posing a model in a doorway between two rooms, one room lighted and the other left in darkness, a much better background was achieved. Though far from perfect, it can be duplicated with ease and offers little to compete with the model's features.

THE AMATEUR who habitually apologizes for his efforts in portrait photography by saying: "If I'd had a suitable background the picture would have turned out better," may be telling the truth—but his excuse is pathetic.

Actually, there is no excuse for being without a suitable indoor portrait background. Even in a crowded apartment where there isn't enough clear wall space for a head-and-shoulders portrait, a little ingenuity in using whatever "props" are handy will result in backgrounds that require no apology.

A blanket is always a sure-fire background prop. Even Yousef Karsh, the world famous portrait master, occasionally uses an ordinary army blanket for a back-

ground. If you can't find a blanket that suits you, use a bedspread or even a bathrobe. The important thing isn't *what* you use—but *how* you use it! Put your kibitzing friend to work by having him or her stand in back of the person to be photographed with a robe stretched out far enough to fill the entire field on your groundglass or viewfinder. Make sure that your exposure shutter speed will be rather slow, then have your assistant shake the robe while you trip the shutter. The shaking movement will blur the details of the robe during a slow exposure, resulting in a background which will appear soft and plain in the final print.

If you have attractive tile work in either your bathroom or kitchen, don't hesitate

ARE NO ALIBI!

By
**LEONARD
CLAIRMONT**



WHAT can be darker than the darkness of night? An open door or window will do the trick.

to make use of it simply because these aren't the conventional locales for picture shooting. I once used an etched stall-shower glass door with backlighting for a picture which turned out to be a pippen. Since then I've observed that most subjects enjoy the informality that goes with non-conventional settings, and are more apt to "give" freely in these surroundings



A PLAIN background is achieved by having an assistant shake a robe while an exposure is made at a slow shutter speed. Actress Phyllis Graffeo is the model.

than in formal ones.

If your apartment happens to have two good plain glass doors, try lifting them off their hinges and propping them up in step formation so that you can shoot your lights between them. By experimenting with the lights and shadows you will be able to obtain an infinite variety of interesting combinations. Professional-looking backgrounds can also be achieved by simply posing a model at the entrance of a doorway leading into another room. Keep the room farthest away well lighted and the wall immediately behind the model on the dark side. The resulting black-and-white background with a soft dividing line in the center will give a picture an eye-arresting quality otherwise hard to obtain.

If you have Venetian blinds, they too can be utilized to good advantage for a background. Try releasing them at the top and pulling them out as far as the cord will allow, which is usually about two and



STRIPS of toilet tissue tacked across a darkened doorway produce a unique background effect when photographed slightly out of focus.

Photos by Leonard Clairmont.



a half feet from the window. Either rest your blinds on a pair of floorlamps, prop them up with broomsticks, or tie them up. Draw your blinds enough so you cannot see what is behind them, and the light passing through the slats will give the effect of natural sunlight.

It is always a good idea to stay clear of unruly and confusing backgrounds, such as wallpapers of bold design, fancy screens, drapes with heavy folds and ornate furniture. The only time this sort of jumbled mass makes an appealing background is when it forms a definite pattern or design, either in simplicity or depth. Props should never be used in a portrait unless they actually mean something to the picture.

For an all-over black background, there is nothing better than the darkness of the night. If the construction of your house or apartment permits, try opening a large window or balcony doors and posing your model against the outside darkness. This

(Continued on page 131)

Make your own

CARDBOARD EASELS

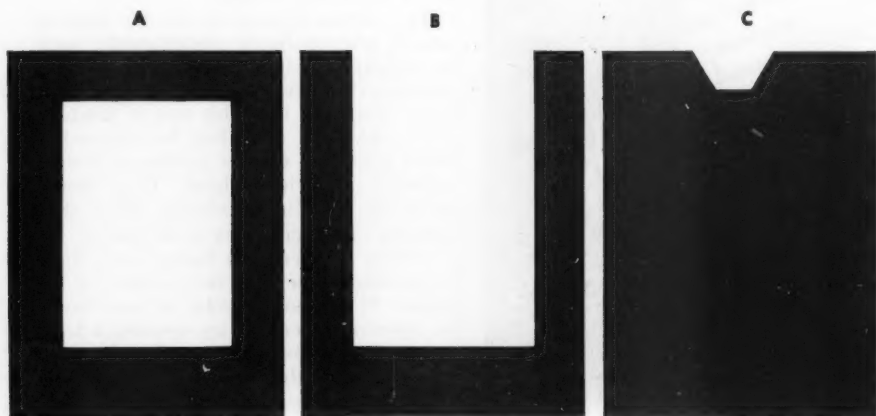
By ARTHUR L. SCHOENI

MOST PHOTOGRAPHIC enlarging paper has a tendency to buckle and curl in the darkroom when the humidity is low. Under such conditions, an attempt to flatten the paper by pulling it over the edge of a table is likely to result in cracks in the emulsion.

One way to meet the situation is to buy enlarging easels either singly or in sets containing easels of various sizes—another way is to make your own easels out of cardboard. By cutting three pieces of cardboard as shown in the diagram below, an easel of any size can be made. Staples, glue, or household cement can be used to join the three parts together. The “O” shaped piece goes on top, the “U” shaped one in the middle of the “sandwich,” and the piece “C” on the bottom.

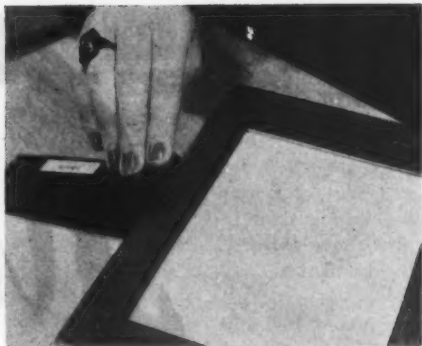
CUTTING PART A of the easel. The exact size of the opening to be cut is drawn on the cardboard in pencil or ink. The opening will be the size of the final picture and slightly smaller than the size of the paper to be used. For best results a steel straight edge should serve as a guide for the razor blade or cutting tool. Cut the lines clean and keep the corners square.

DIAGRAM of the three cardboard parts necessary for making an easel. For the 5x7 size, the inside dimensions of part A are $6\frac{3}{4} \times 4\frac{7}{8}$. For part B, $8 \times 5\frac{1}{16}$. Outside dimensions are not critical, but would be about $9\frac{3}{4} \times 7\frac{1}{2}$.





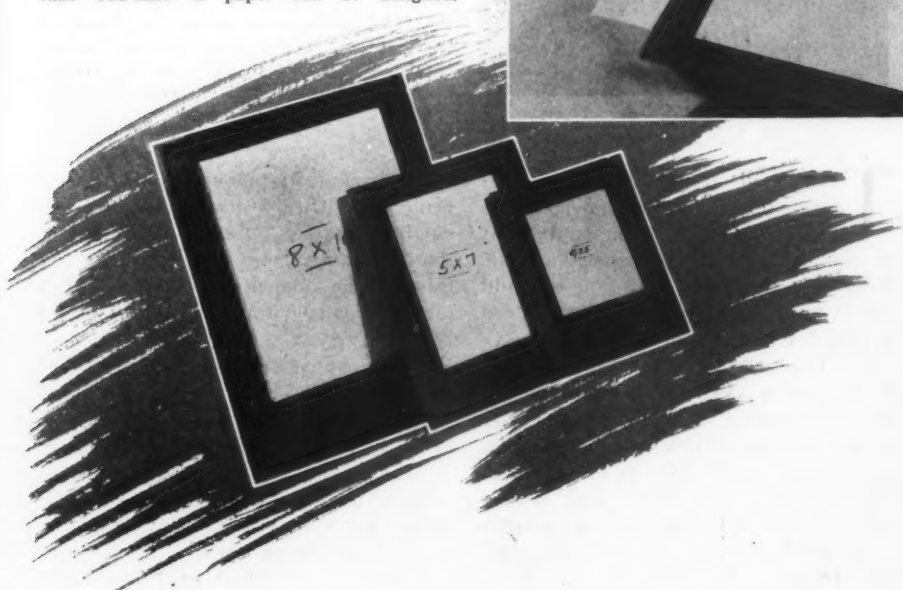
ASSEMBLING THE EASEL. Part C (notched at one end to facilitate handling of the printing paper) is fastened to Part B with staples. Glue or dry-mounting tissue can be used if desired. The size of the opening in Part B is exactly as wide as the paper to be used, plus about 1/16" for clearance and sanded smooth.



AFTER THE BOTTOM and middle parts of the easel are stapled together, the top piece (A) is stapled in position. If all pieces were exactly the same size to begin with and the cutting measurements made accurately, the opening will center over the slot in Part B, allowing a small margin on each side and bottom.

A COMPLETED EASEL ready for use. The paper is inserted in the "sandwich" as illustrated. If desired, red cellophane tape or decorative binder tape can be used along the edges and bottom to improve the easel's appearance.

THREE FINISHED EASELS made for standard picture sizes. By a little figuring, easels to take odd-sizes of paper can be designed.

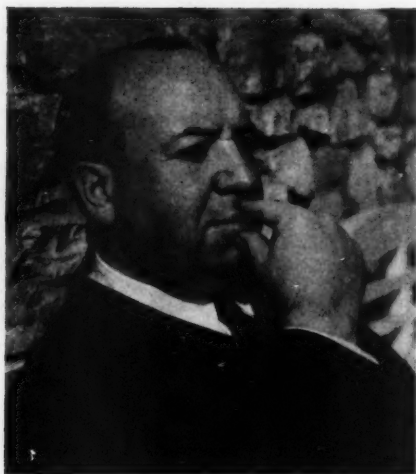


Suspense

HOW...

WHEN...

WHY...



BY ALFRED HITCHCOCK

MYSTERY and suspense created the Hitchcock way can add a new touch to your movies. Incidentally the familiar face of Mr. Hitchcock (left) appears in every movie he directs.


THE main difference between suspense in an amateur movie and a professional production is the cost of the equipment. By giving a little thought to your own films you can add just as much suspense and mystery as can be added in Hollywood.

One way to do this is to let the audience in on your mystery. Give away clues so they will provide their own anxiety. Say to the audience "This man is going to murder that man." Give them all the information you can. Then play around with the clues until your audience reaches a high pitch of excitement and starts praying, "Do it . . . for God's sake, do it!"

Creaking doors provide emotional suspense. But when a man walks in in full day-light and says, "I am going to murder that woman. I am going to cut her throat," the audience rises to a higher pitch of excitement asking, "When? How? Why?"

An illustrative scene is found in "The Lady Vanishes." Here the plot point was that two glasses of doped wine were to be drunk by the hero and heroine, who were in conversation with the villain. Conventionally, they would have picked up the glasses, put them to their lips and set the glasses down several times.

I asked myself, "Is it possible to make



this worse?" Feeling it was, we had two glasses filled with poisoned wine standing on the table. The camera was placed so you looked through the glasses at the players. The conversation went on and on. The actors never looked at the glasses at all. At the very end of the scene, the actors got up and started to take their leave. The host called their attention to the glasses of wine. The hero and heroine picked up their glasses and drank the wine quickly.

All during this time, the audience worked up to a high pitch of excitement.

The moment you combine unusual elements the audience starts to worry and to work for you. In "Shadow of a Doubt," the picture opens with a man being chased by the police. He eludes them. Then you see him on the telephone saying, "Coming to visit you." Next you see a harmless little American family receiving a telegram. The audience starts thinking, "A harmless

WONDERMENT and anxiety in the actor's expressions, coupled with a mysterious air created by the lighting and fog, give this scene more suspense than would have resulted by showing the body of Rebecca in the boat.

INGRID BERGMAN listens at the door of her patient's room to try to find a clue to his mental illness, in a scene from "Spellbound." Suspense is created here by the strong spotlight on the face, surrounded by shadow areas. The pose adds to this effect: note Miss Bergman's hand is not quite on the door knob, as she leans forward a little and listens, undecided as to her next move.



American family and a man running away from the police! What's going to happen?"

Amateurs fail to create suspense in their pictures because they have not made adequate preparation to capture their imagination on film.

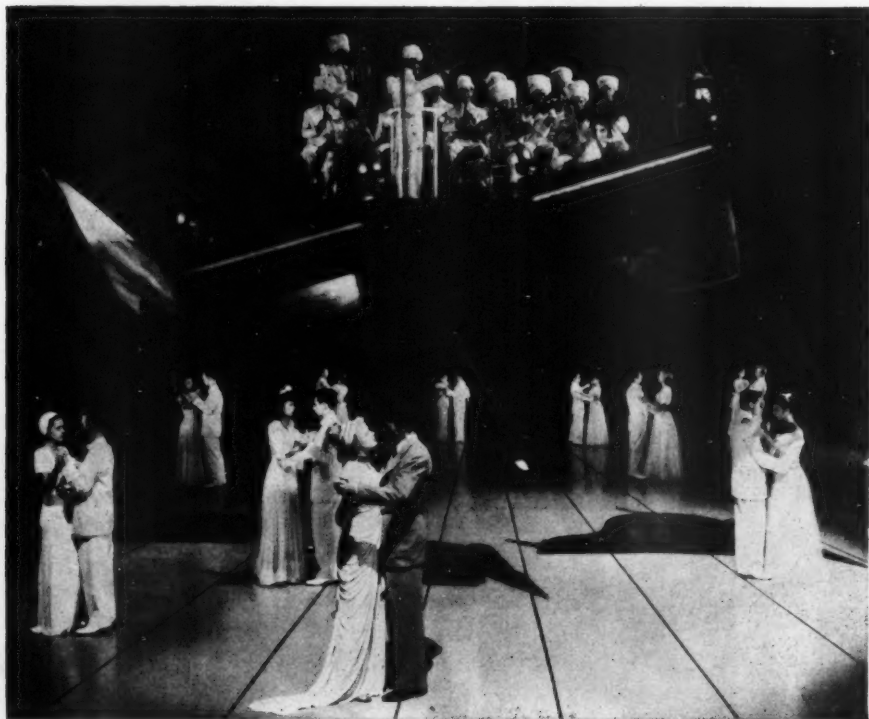
I work on a picture from its inception. The original outline of "Spellbound," which starred Ingrid Bergman and Gregory Peck, was started in London. We had purchased Frances Breeding's novel "The House of Dr. Edwardes." Angus Macphail started the adaptation with me there. When I returned to Hollywood, Ben Hecht came to do the major screen-play work. We discussed and analyzed all phases of the work as the screen-play progressed.

When Ben Hecht turned in his material, I re-dictated it, indicating close-ups, fade-outs and other technicalities ahead of time for shooting. I knew the story and visualized it on the screen long before we started the cameras rolling. I knew what style it would be, what kind of suspense I wanted to create. In other words, the groundwork wasn't left up to guesswork.

There are various means of using my favorite style—that is starting with a springboard situation. You can get the most suspense, most excitement, if the story has a whole and established situation.

"Spellbound" is a good example. A man arrives at a sanitarium to replace the head psychiatrist. Ingrid Bergman is a woman analyst. She discovers the new doctor is

SUSPENSE in this scene is created by the audience realizing that this is the dream of an amnesia victim and their curiosity as to what will happen when the bubble bursts and he drops back into reality. Though Salvador Dali sets are beyond the means of the average amateur, there are definite suspense creating effects he can use such as dark backgrounds and suspended objects.



an imposter and that he is an amnesia victim as well. The mystery is heightened by the fact that not only is he ignorant of his own identity but he doesn't know what happened to the man whose identity he has adopted. Bergman realizes he is an imposter, but she also falls in love with him. She wants to help him recover his memory. Who is he? What happened to the real doctor? By psychoanalysis, she attempts to solve this problem. By probing she hopes to discover whether or not Gregory Peck murdered the real doctor. During efforts to solve the mystery, she and Peck are in the position of being apprehended by the police.

A person undergoing psychoanalysis under tremendous pressure begins to hate the analyst who seeks his cure. The more Bergman probes the mysterious stranger's brain, the more likely he is to turn on her and kill her. Suspense mounted when the girl, trying to reconstruct past events, endangers her own life by forcing him to reconstruct events.

Here are several suspense motives. He might kill her. The audience worried over that. The police might catch them. The audience worried over this. Is he a murderer? Or will he, although innocent, become a murderer because of the strain of the mental processes her probing puts him through?

Everything about "Spellbound" was based on psychiatric possibilities. The psychiatric details provided pieces of suspense and entertainment.

If you are dealing with a picture of "springboard situations" or a situation arising within the first five or six minutes of a picture, you have set a problem. For example, a man can escape from a prison and with the police chasing him in the first five minutes, you can provide a situation. How do various people treat an escaped convict? Some will push him away, others help him.

In "39 Steps," we had a woman spy killed in a man's apartment. He carries out her mission. How, when and why does he complete her mission?



POSE and expressions are the prime elements here as the jealous housekeeper shows Joan Fontaine the room and clothing of her predecessor, Rebecca, attempting to drive her crazy.

Suspense is provided by juxtaposition of queer things. You can have a woman, wearing a turtle-neck sweater, placing her hand on her throat pulling the sweater away enough to show a ghastly scar then covering it again. Your audience wonders why. The woman sharpens a razor. Then you show newspapers the following morning headlined, "Man Found With Neck Gashed." You flash to people saying, "Did you hear about the man murdered . . ." As they talk hands go to their throats. Nine different stories could go on from there.

I have been asked why the public loves a mystery. I daresay psychologists give it all sorts of deep reasons. I would say it's just a development of natural curiosity, going back to the more elementary form of 'tell me a story.' A mystery is a kind of fairy tale because it transports a person into realms of horror, suspense and fear but there is no loss of inner security. To participate in horror is one thing, but to watch from a safe vantage or to listen to it is another.

A mystery should never carry a moral or a message. A film because it has a

(Continued on page 130)

PHOTO DATA

CLIP SHEET FOR PERMANENT REFERENCE

FORMULAS, DESCRIPTION AND POSSIBLE VARIATIONS IN PROCESSING ANSCO COLOR PRINTON

by JAMES E. BATES, *AnSCO Color Development Laboratory*

Reprinted from *The Ansonian*

Chemicals for processing Printon are available in the form of AnSCO Color Printon Developing Outfits. The formulas given in this article represent an improved method in comparison with the present Printon Developing Outfits. However, chemicals supplied in the outfits can be used for the new procedure by mixing the number 858 short-stop bath from bulk chemicals, and following the procedure as outlined in this article rather than the instruction sheet furnished with the outfit. In other words, the first developer, the color developer, the hardener, the bleach and the fixer contained in the outfit can all be used in place of the corresponding formulas given here. This means that only the short-stop bath number 858, which is not the same as the short-stop packed with the outfit, must be mixed by the photographer himself. The sulfate rinse and the short-stop (and clearing bath) from the outfit can be discarded.

AnSCO Color Printon is in structure very similar to AnSCO Color Film; it has three different emulsion layers, each sensitive to a different color, and each containing a colorless dye component that will form a color dye image upon reaction with oxidized color developer. Whereas the film is coated on a clear cellulose base, Printon is coated on a highly reflective opaque white cellulose base. The Printon emulsions are also much thinner than those of the film, because in a reflection process (the finished Printon is, of course, viewed by reflected light) the apparent density at any point is double the transmission density of the layers. Light is absorbed twice by the same layer, once as it goes down through to the base and once as it comes back through to the eye.

Both AnSCO Color Film and Printon are reversible materials in that each reproduces the color and tone values of the scene or the transparency to which they are exposed. Since each requires reversal processing, it is possible to use many of the same solutions for both the Film and Printon processes. In the description that follows of the Printon processing solutions the reader is referred several times to the article describing the Film formulas released last year in the ANSONIAN and reprinted in MINICAM's Photo Data Clip Sheets, August, September and October, 1945. Solutions that were described in detail in the previous publication will be mentioned only briefly in this article.

First Development:

AnSCO No. 502

FIRST DEVELOPER FOR PRINTON

	Avoir.	Metric
Water 65-90°F.	24 ounces	750 cc
AnSCO Metol	44 grains	3 grams
AnSCO Sodium Sulfite	1/2 oz., 75 gr.	50 grams
AnSCO Hydroquinone	88 grains	6 grams
AnSCO Sodium Carbonate, mono-hydrated	1 1/2 oz., 40 gr.	40 grams
AnSCO Sodium Thiocyanate	29 grains	2 grams
AnSCO Potassium Bromide	29 grains	2 grams
Water to make	1 quart	1 liter

Do not dilute for use.

Develop Printon 12 minutes at 68°F., or 8 minutes at 75°F. (For intermediate temperatures consult diagram.)

The first development of Printon serves the same purpose as first development of AnSCO Color Film in that the latent images in each layer are developed to form negative silver images. The first development determines the gradation characteristics and color balance of the completed print to a greater degree than any other single processing solution. The first developer must act on all of the three emulsions to produce substantially the same gamma in each layer so that good color balance can be maintained. In addition, the overall contrast of the three layers must be controlled within close limits to prevent contrasty, washed-out prints or flat, muddy prints. For this reason, extreme care must be exercised in the weighing of chemicals in this formula, for small chemical variations can disrupt both the relative rates of development in the three layers and the overall contrast. The most critical ingredient is the sodium thiocyanate. Since small quantities of this chemical are difficult to weigh accurately because of its hygroscopic (water absorbing) properties, AnSCO supplies sodium thiocyanate as a concentrated liquid which may be diluted by the user to form a stock solution. Follow directions exactly in diluting and using this chemical.

Sodium thiocyanate functions as a silver halide solvent in the formula and thus aids in clearing highlights by physically dissolving the small insensitive grains of silver halide that are normally slow to develop, as well as hastening development of the larger grains by increasing development potential. Because the thiocyanate acts first on the top or yellow forming layer, an excess of the chemical produces a bluish cast and particularly a bluish

PHOTO DATA

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MINICAM
PHOTOGRAPHY

maximum density (black) as well as higher contrast in the final print.

Slight modifications of developing times are possible to achieve certain results. Overdevelopment will give increases in highlight and middle tone contrast; this may give more desirable prints from flat transparencies. Extreme overdevelopment will give a lower maximum density and softer shadow gradation, as well as contrasty highlights. Such prolonged overdevelopment is recommended only in exceptional cases.

Shorter developing times than normal will produce a slight softening of highlight and middle tone gradation but will usually give less brilliant whites. Both over- and underdevelopment will, of course, change the color balance slightly so that the prescribed filter recommendations for the emulsion must be changed. The print exposure should be increased when underdevelopment is used and the exposure decreased when overdevelopment is used. Underdevelopment will make the prints yellower and overdevelopment will make the prints bluer. Variations of the first developing times for special effects should generally not exceed plus or minus 30%.

Short-Stop:

Anso No. 858

FIRST DEVELOPER SHORT-STOP FOR PRINTON

	Avoir.	Metric
Water 65-90°F.	24 ounces	750 cc
Anso Acetic Acid (glacial)	2½ drams	10 cc
Anso Sodium Acetate	½ oz., 75 gr.	20 grams
Water to make	1 quart	1 liter

Do not dilute for use.

Use for 2 minutes at 60-75°F.

This solution serves to neutralize the alkali of the first developer solution and stops development. To prevent the rapid neutralization of the carbonate with attendant formation of gas bubbles, the short-stop solution is buffered with sodium acetate to regulate its acidity. Those users with pH instruments available can easily check the strength of the short-stop. When the solution is fresh, the pH is approximately 4.7; it should be discarded when the pH has reached 5.5. The time of treatment is not critical but vigorous agitation should be given to insure complete action of the solution over the entire print. Ordinary room light may be turned on after two minutes in the short-stop bath.

Second Exposure:

Following the short-stop the print should be washed for two minutes in water not exceeding 75°F. in temperature. Second exposure can be given during this washing or in a separate operation, but care should be taken that each print receives full exposure, equivalent to two minutes to a No. 1 photoflood at three feet. Because of the thinner emulsion layer of Printon, second exposure is not as critical as with color film. However, it is advisable to give part of the exposure to the back side of the prints to insure complete exposure of the bottom (cyan) layer.

Color Developer:

Anso No. 652

COLOR DEVELOPER FOR PRINTON

	Avoir.	Metric
Water 65-75°F.	29 ounces*	900 cc*
Anso Dicolamine	½ ounce	15 cc
Anso Sodium Sulfite	½ oz., 60 gr.	19 grams
Anso Sodium Carbonate, mono-hydrated	2½ oz., 75 gr.	80 grams
Anso Hydroxylamine Hydrochloride	15 grains	1 gram
Anso Potassium Bromide	37 grains	2.5 grams
Water to make	1 quart	1 liter

*Do not attempt to dissolve the chemicals in less than this amount of water.

Do not dilute for use.

Develop Printon 12 minutes at 68°F. or 9 minutes at 75°F. (For intermediate temperatures consult diagram.)

The color developer for Anso Color Printon is basically the same as that for Anso Color Film; both contain the aromatic amine color developing agent, Dicolamine. This developing agent reduces the silver halides remaining after first development to form positive silver images. The chemical reaction that simultaneously occurs in the Dicolamine produces an oxidation product that combines with color-forming substances incorporated in the emulsions during manufacture.

In the top emulsion layer the color component forms a yellow dye. In the middle layer a different component produces a magenta dye and finally, in the lower layer, the third component produces a cyan dye. Thus, a single step simultaneously produces three color images in Printon. As can be seen in the final print, these three dyes combine to reproduce the colors of the original transparency.

The requirements for a color developer for Printon are different from those for the film color developer. With Printon the primary considerations are long scale gradation and freedom from stain. Also important is the fact that Printon is a reflection type of material which requires lower density images than the film. Formula No. 652 contains sodium sulfite which serves to reduce the possibility of stain in the highlights, and to soften the contrast of color development as well as to act as a preservative. Hydroxylamine hydrochloride is added to the developer as another anti-staining agent.

As in the color film developer, sodium carbonate plays a principal part in controlling the activity of the developer. Less than eighty grams per liter gives a reduction in the rate of yellow layer development and a slight increase in the rate of cyan development producing colder results. More than eighty grams per liter increases yellow, and to a slight extent magenta development, and reduces the cyan development slightly to give a warmer balance. Ten percent variations of carbonate cause noticeable color changes. The concentrations of each of the other ingredients should also be held to within ten percent of the correct formula to insure best results, although the difference in results will be less noticeable.

(To be continued in November)

BEFORE CRITICIZING a picture, it is always best to stop and evaluate your intellectual awareness in terms of present, social and economic conditions. Remote as they may seem from making or studying a picture, these conditions influence the graphic arts, causing a continual evolution from one form to another.

Let's consider the picture: "On The Beach." It has been said that the role of the artist is to "hold up a mirror that we may see ourselves as others see us." I feel that this statement is very pertinent to the photographer. In this picture the circular movement, accidental or not, is effective in isolating the figure in the center. "Obesity, where is thy sting? Life is for the quick; some tire and fall by the wayside!" The photographer, unwittingly perhaps, has here recorded a kaleidoscopic image of "we the people" under the sun. There



**A MONTHLY DISCUSSION OF PICTURES
BY AXEL BAHNSEN, A.P.S.A.-F.R.P.S.**

is satire and pathos depicted here—of belonging and loneliness; the little boy in the upper left, alone and wondering, the complacency of the groups circling the figure, the movement and life, quiet and indolent. . . . Technically, the photograph is well done despite the fact that one
(Continued on page 134)



**Photograph by
Eric Kasten**



Portrait by Edward Weston

"Patience Isn't Enough..."

says Edward Weston,

winner of Guggenheim Fellowship in Photography

FROM a half-hour's conversation with Edward Weston, dean of American portrait photographers, the average camera fan can gain a wealth of information about portraiture.

"The task of a portrait photographer is really twofold," Weston says. "The photographer must use his camera to reveal the living quality, the true personality of his subject; to govern the camera's unselective eye so that the final print will show the subject as the world actually sees him.

"And equally important," Weston adds, "the photographer must learn to govern his subject, to draw forth the paramount qualities of personality which the camera must record. In this respect it is absolutely essential to eliminate self-consciousness in the subject.

"The photographer must recognize the moments that are truly characteristic of the subject's personality and he must record them quickly before they are lost."

Weston's Equipment Simple

First photographer to win a Guggenheim Fellowship,

Weston works with a minimum of equipment. "After thirty-five years of professional portraiture, my whole portrait equipment consists of a **GRAFLEX**, a tripod, and a background. I have been using **GRAFLEX** cameras since before 1910; right now I am using a 4x5 R.B. Auto **GRAFLEX** with 11 inch lens for portraits. I do my own printing, and deliver contacts, unretouched."

Portraiture a challenge!

"Portrait photography presents a special challenge to photographers. For they must have more than mechanical skill and patience. The great camera portraits are those which mirror the personality of the subject as recognized and captured by the photographer. Never depend on developing-room tricks to add



spontaneity and character—those are qualities which you must draw forth and photograph. A photograph has no value unless it looks exactly like a photograph and nothing else."

GRAFLEX, INC.

VISIT Graflex Information Centers—At 50 Rockefeller Plaza, New York, and 3045 Wilshire Boulevard, Los Angeles, California.

PHOTO SCHOOLS

This annual feature is re-published in book form at 25c a copy. To order, send 25c to the Book Department, MINICAM PHOTOGRAPHY, 22 East 12th Street, Cincinnati 10, Ohio. Last month (August issue) some 100 schools were listed, and this installment contains additional ones. The booklet will contain perhaps 25 more school listings received too late for press.—Ed.

By AGNES REBER

ALABAMA

BIRMINGHAM CAMERA CLUB, P. O. Box 2126, Birmingham 1, Alabama. No classes as such, but advanced members offer help and instruction to any new members who are interested. Dorothy Bandy is secretary.

CALIFORNIA

HUMBOLT STATE COLLEGE, Arcata, California. Elementary Photography, Advanced Photography, Applied Photography, offered by Physics Department. Dr. Wm. Lamphere, Instructor. One hour lecture and three hours lab work a week in Elementary; hours for other two courses to be arranged. Tuition, \$3.00 for 5 units or less of credit; full load is \$10.50. Spring term for Elementary, either semester for other two; 18 weeks duration.

SAN DIEGO STATE COLLEGE, San Diego, California. Course in Elementary Photography under the instruction of A. W. Nall,

given during Fall and Spring terms, day classes. One semester, 2 lecture and 6 laboratory hours. Course may be taken alone without accompanying courses. Further information from the Registrar.

SAN JOSE STATE COLLEGE, San Jose, California. George E. Stone, A.M., Lester Brubaker, A.B., Instructors. Elementary Photography offered in Fall, Winter and Spring quarters: 3 lecture and 6 laboratory hours a week for 12 weeks, 4 credits. Advanced Photography offered in Fall and Spring quarters; prerequisite of Beginning Photography. 2 lecture and 4 laboratory hours a week for 12 weeks, 3 credits. Tuition is \$7.00 per quarter for regular students. College provides cameras, materials, etc. Photography is offered as part of Science program, although it may be taken as an elective subject. The Junior College offers an Elementary Course to qualified special students at a cost of \$8.00. A popular demon-

How would you solve a problem like this?

PROBLEM

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without changing color values of landscape. It gives you perfect control of reflections from water, stone and other shiny surfaces. This **NEUTRAL Filter** is the *only* sky filter which can be used with either color or black-and-white without distorting color values.

POLAROID Light-Polarizing FILTERS



A product of **POLAROID Corporation**

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Empire State Building, New York City

*TRADE MARK USED BY POLAROID CO. OF CAMBRIDGE, MASS.

stration course under the title "Photography for Fun" is sometimes offered during summer session by Dwight Bentel, Journalism Department.

CALIFORNIA SCHOOL OF FINE ARTS, 800 Chestnut Street, San Francisco 11, California. Offered night classes in Photography during Summer Session, which ended August 2. This course was designed primarily as a refresher course for serious amateur and professional photographers. It is suggested that any one interested communicate with the school about possible evening classes during Fall and Spring months.

HAYWARD EVENING HIGH SCHOOL and **HAYWARD UNION HIGH SCHOOL**, Hayward, California. Melvin Rush, Instructor. Elementary and advanced photographic practices. The day school is free, but there is a 50 cents registration fee for the evening school. Course is 18 weeks for both schools, 5 hours a week for day and 4 hours for night school.

ART CENTER SCHOOL, 2544 West 7th Street, Los Angeles, California. Offers complete photographic training by professional faculty. Training facility under GI Bill of Rights.

COLORADO

UNIVERSITY OF DENVER, University Park, Denver 10, Colorado. Course in Photography offered by the Art Department, with Byron E. Cohn as instructor. Course begins with the Spring semester and lasts 11 weeks; there

are 44 lecture hours and 22 laboratory hours; 5 quarter hour credits are given. Cost of course alone is \$38 for the quarter, and no accompanying courses or prerequisites are necessary. Further information may be obtained from the Registrar.

COLORADO STATE COLLEGE, Fort Collins, Colorado. Louis R. Weber, Professor of Physics. Photography given during Fall and Summer terms. 2 lecture and 2 laboratory hours a week for 12 weeks, resulting in 3 credit hours. Tuition and registration fee is \$20. Inorganic Chemistry and beginning Physics required.

WASHINGTON, D. C.

GALLUDET COLLEGE, 7th Street and Florida Avenue, N. E., Washington, D. C. No course in Photography as such, although the college furnishes a darkroom for the use of a photography club sponsored by the college.

UNITED STATES DEPARTMENT OF AGRICULTURE GRADUATE SCHOOL, Washington 25, D. C. Basic Photography, Carl Hanson, Instructor; lectures, demonstrations, and visual material on basic principles and practices in photography, including visual and color photography. Applied Photography, Elbridge Purdy, Instructor; Basic Photography, or equivalent prerequisite for this course; Chemistry of Photography, John Faust, Instructor; Applied Color Photography, Elbridge Purdy, Instructor; Theory of Color Photography, R. J. LeFebvre, Instructor.

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MULTI-MULSION

GEORGIA

MERCER UNIVERSITY, Macon, Georgia. Physics Department offers Elementary Photography under the instruction of Professor R. H. Snyder. Given during Fall and Spring terms, day classes; 3 lecture and 4 laboratory hours per week for 11 weeks; 5 quarter hours in Physics given.

GEORGIA STATE COLLEGE FOR WOMEN, Milledgeville, Georgia. Physics Department offers course in Photography under the instruction of Paul J. Boesen for 6 weeks during Summer months; 4 lecture hours, and 12 laboratory hours per week. Further information from Registrar.

IDAHO

COLLEGE OF IDAHO, Caldwell, Idaho. Physics Department offers course in Photography under the instruction of Professors H. M. Tucker and L. M. Stanford. One lecture hour and 3 laboratory hours per week for 18 weeks. Cost of \$20 per semester covers 2 hours credit for this one course. Further information may be obtained from the Registrar.

ILLINOIS

AURORA COLLEGE, Aurora, Illinois. Course in photography taught by Clarence R. Smith during the Summer term; two hours per week for 12 weeks. Students participate in classroom demonstrations. Credit is given to-

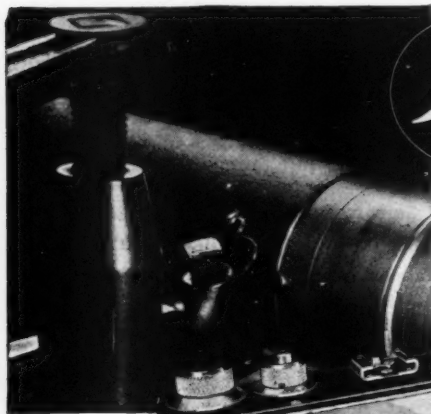
ward Physics major, but the course may be taken without any accompanying courses. Further information from the Registrar.

CHAMPAIGN and URBANA CAMERA CLUB, 709 South Wright Street, Champaign, Illinois. Experimental lab, practice in lighting, posing, etc., the meetings for this purpose alternating with the meetings of the Camera Club. Write to B. A. Strauch for further information.

CHICAGO SCHOOL OF PHOTOGRAPHY, 59 East Van Buren Street, Chicago 5, Illinois. Offers thorough training in photographic techniques to Beginners and Advanced Students.

S. J. SILVERSTEIN, 180 W. Washington Street, Chicago, Illinois. Instruction is given in printing and negative making only to serious amateur photographers who are interested in finishing their own work. Particular interest is shown to "pictorialists." The number of lessons and length is dependent upon the individual. All work is done in the laboratory with the student doing most of processing. Tuition is \$3.50 to \$5 per hour.

NORTHWESTERN UNIVERSITY, Evanston, Illinois. Principles of Photography, taught by Floyd G. Arpan and Albert A. Sutton; 2 lecture hours and 6 laboratory hours per week for eleven weeks. Cost for course is approximately \$50 for supplies, plus tuition cost for a 4-hour course. Offered during Spring, Winter, Fall and Summer quarters. Press Photography, Floyd G. Arpan, Instructor; 2 lecture hours



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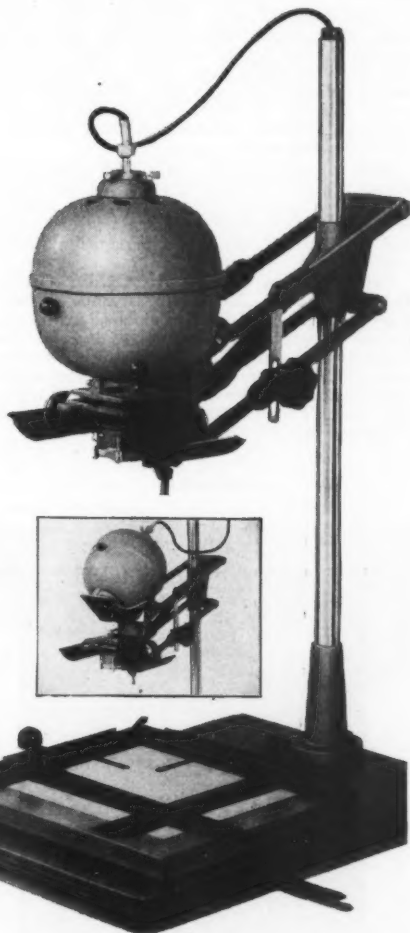
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and 8 laboratory hours per week for eleven weeks. Photographic Editing is also offered during Winter and Spring terms, to be devoted exclusively to the selection and appreciation of pictures for publication. Further information may be obtained from Floyd G. Arpan, Medill School of Journalism, Northwestern University.

COLLEGE OF ST. FRANCIS, Joliet, Illinois. Photography course in light and color offered during Spring term; 2 lecture hours and one full day a week given to laboratory work. Spring term, day classes. Course may be taken without accompanying courses or prerequisites. Further information from registrar, or Physics professor.

BARAT COLLEGE OF THE SACRED HEART, Lake Forest, Illinois. General Technique of Photography and developing offered as part of regular art classes. Given during Fall and Spring terms; no prerequisite necessary.

Peoria Cinema Club's **SCHOOL OF CINEMATOGRAHY**, 700 Ravine Avenue, Peoria, Illinois. Dr. A. K. Baumgardner, Instructor. Course in cinematography which consists of six lectures given one each month during winter season. Laboratory demonstrations are made and illustrated slides show composition, exposure, etc. Tuition is club membership fee of \$3.00 per year.

INDIANA

ANDERSON COLLEGE. Anderson, Indi-

ana. No course offered, but an active camera club exists, offering much help to anyone interested.

BUTLER UNIVERSITY EVENING SCHOOL, Indianapolis, Indiana. Department of Journalism offers News Photography, which is a required course in Journalism. Instructors are men connected with local newspapers so that students get the benefit of learning from someone who actually does the work. Course is 18 weeks long, 1½ hours per week. Tuition \$10, Laboratory fee \$2.00.

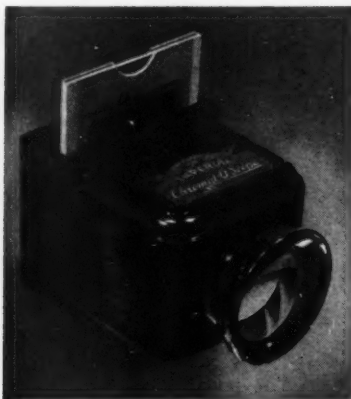
ROSE POLYTECHNIC INSTITUTE, Terre Haute, Indiana. While there is no course given for credit, this school has a Camera Club whose members are given photographic instruction. The course in Metallography offers a great deal of knowledge in photography.

IOWA

BUENA VISTA COLLEGE, Storm Lake, Iowa. Photography given in connection with their newswriting course, but there is no separate course as yet. Further information may be obtained from Professor Kermit Buntrock.

COE COLLEGE, Cedar Rapids, Iowa. No formal course in Photography is given, but much experience in photomicrography is received by students majoring in Geology.

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in instruction. Class meets three days per week, plus laboratory week, for twelve weeks. Course is open to any college student of advanced standing, but others are accepted by special arrangement with instructor. Credit for course is 3 quarter hours toward graduation.

LUTHER COLLEGE, Decorah, Iowa. Professor Emil Miller, Instructor. Elementary course in practices and principles of photography, properties of lenses, lighting, exposure, developing, printing, enlarging. Tuition \$15 for 18 weeks. One recitation a week plus one three-hour laboratory period.

GRINNELL COLLEGE, Grinnell, Iowa, Dr. W. C. Oelke, Instructor. Chemistry Department offers lectures, demonstrations and laboratory work on theory and practice of photography. Course is not intended to turn out professional photographers but will give an interested person a good start in amateur photography from the hobby standpoint. It also serves those students wanting to learn the basic technique of the photographic process for use in scientific and teaching work such as the recording of data or making of slides and other visual education material. College has flat rate tuition. Photography course is taken as part of regular elective college work. Sixteen weeks; two-hour lecture, and two 2-hour lab periods each week; offered during semester which begins in February.

KANSAS

KANSAS STATE TEACHERS' COLLEGE,

Emporia, Kansas. No course in photography as such, but Visual Education offers some photographic work concerned with the making of lantern slides and pictures for schoolroom use.

CENTRAL COLLEGE, McPherson, Kansas. Elementary Photography. Tuition \$11 for 18 weeks, 3 hours a week. Laboratory fee \$2.50. May be taken by anyone.

BETHEL COLLEGE, North Newton, Kansas. No course offered; however, this college has a Camera Club where student members learn many essentials of photography. This club is under the guidance of Melvin Gingerich.

KENTUCKY

NAZARETH COLLEGE, Louisville 3, Kentucky. Offers Elementary course in photography. Lighting, lenses, developing, printing, enlarging, etc. Two lectures and one laboratory period a week; 3 credit hours given. Fall term, night and day classes. No prerequisites.

MASSACHUSETTS

MASSACHUSETTS STATE COLLEGE, Amherst, Massachusetts. Physics Department offers course in photography under instruction of W. F. Powers. Day classes during Spring term; 1 lecture and several laboratory hours per week for 15 weeks. Course offered to regularly enrolled students only.

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bury Street, Boston, Massachusetts. Offers the following evening courses in photography: Photographic Coloring, Stillman Powers, Instructor, charge \$5, beginning October 2. No knowledge of photography is necessary for this course. Natural Color Photography, Ralph B. DeLano, Instructor; 16 lectures, beginning October 9 and February 12, charge \$9. Outdoor Photography, 8 lectures, charge \$5, beginning May 5. Photography, 8 lectures, charge \$5, beginning October 7 and March 10; for beginners. Photo-Techniques, 8 lectures, charge \$5, beginning January 6, knowledge of photography necessary. Techniques of Portrait Photography, C. J. Egon, Instructor, 16 lectures, charge \$20, beginning October 11 and February 14; fundamental knowledge of photography necessary. Advanced Photo-Techniques, Herbert Lang, Instructor, 12 lectures, charge \$11, beginning October 9 and February 19, for professionals and advanced amateurs.

SCHOOL OF PHOTOGRAPHY, Boston YMCU, 48 Boylston Street, Boston, Massachusetts. General Photography, Portraiture. Ralph Osborne, Instructor. Lecture and demonstration, 1½ to 2 hours a week; 14 weeks for General Photographic and 10 weeks for Portraiture. Courses include exposure, developing, printing, enlarging, retouching and the Abrasion Process, composition, Kodachrome. Tuition is \$10 for Portraiture; \$12 for General Photography. Laboratory available for \$5 extra each week.

MOUNT HOLYOKE COLLEGE, South Hadley, Massachusetts. Mr. Rogers Rusk and Miss Reina Sabel, Instructors. Photographic principles and methods; technique of picture taking and picture making. Tuition for students not taking regular curriculum, approximately \$25 for one-hour course and \$500 for two-hour course. Semester consists of 16 to 17 weeks.

WELLESLEY COLLEGE, Wellesley, Massachusetts. Catherine L. Burke, Instructor. Department of Physics offers course in photography to students taking the regular curriculum. Three hours a week for 34 weeks.

MICHIGAN

UNIVERSITY OF MICHIGAN, Ann Arbor, Michigan. Department of Civil Engineering offers instruction in: Basic Photography (covering fundamental theory and practice); Advanced Photography (continuation of above); and Aerial Photography and Mapping (map projections and map making from aerial photographs). Edward Young, Instructor. Tuition for Michigan residents, \$70 and for non-Michigan residents, \$150; each in addition to a laboratory fee.

Extension Service offers a correspondence course covering theoretical and practical aspects of photographic instruments and their operation; dark room technique, analysis of pictorial photography with emphasis on composition, color photography and reproductions.

News Photography course open only to seniors concentrating in Journalism. Wesley H. Maurer, Instructor.

UNIVERSITY OF DETROIT, Detroit, Michigan. Physics Department offers course in photography under Professor W. M. Baker. Fall term, day classes; one lecture hour and two laboratory hours per week. Course may be taken without accompanying courses or prerequisites. Includes theory and application of the fundamental principles of photography.

WAYNE UNIVERSITY, Detroit, Michigan. Under course "Physics 105" photography is offered. One college laboratory course or equivalent is required beforehand. Three credit hours are given for this course, and it extends over a period of fourteen weeks. Katherine Chamberlain, Professor of Physics, will supply additional information.

MINNESOTA

STATE TEACHERS COLLEGE, Duluth, Minnesota. Course in Scientific Photography taught by Dr. Z. V. Harvalik. Meets five times a week for 12 weeks, giving 5 quarter hours college credit. Covers the chemistry and physics of photography in an elementary presentation. Also prepares students for teaching visual education on different subjects, as well as darkroom technique. College Physics and Chemistry are prerequisites.

STATE TEACHERS COLLEGE, Mankato, Minnesota. G. M. Wissink, Instructor. Department of Physics offers course in Elementary Photography. Covers work in developing, printing, enlarging, as well as the organization and operation of camera clubs in High Schools. Four hours a week for 12 weeks.

MINNEAPOLIS SCHOOL OF ART, 200 East 25th Street, Minneapolis 4, Minnesota. Has in the past offered a most complete schedule in photographic instruction; however, this is temporarily being withdrawn from the school's curriculum. Further information may be obtained by writing the Director, Edmund M. Kopietz.

UNIVERSITY OF MINNESOTA, Minneapolis, Minnesota. The University offers courses in photography for students in specified programs including General College, Fine Arts, and Journalism. The beginning course gives instruction in the use of cameras, primary studies in optics, film and paper emulsions, etc. Actual darkroom work included in course. Fall, Winter and Spring quarters; three credits. Advanced course for those who have taken the beginning course or who have done photography work and know the principles of development and printing. There is also a specialized course in News Photography, including the analysis, use, and influence of the news picture, with elementary instruction in the use of the news camera. A fee of \$5 per quarter is charged for each course.

MISSOURI

STEPHENS COLLEGE, Columbia, Missouri. Townsend Godsey, Director of Photography. Offers three courses, giving 12 credit hours. Home Photography, Art Photography, Vocational Photography, including Free Lance. This is a school for women.

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UNIVERSITY OF MISSOURI, Columbia, Missouri. Clifton C. Edom, Instructor. School of Journalism offers three courses in press photography—technique, darkroom practice, flash equipment, studio portraiture. Students work on actual assignments for daily newspapers. Well-known photographers and picture editors occasionally give lectures to students. The third course concentrates on free-lance and advertising photography. Tuition \$45 per semester for a full course—16 weeks.

MISSOURI SCHOOL OF MINES AND METALLURGY, Rolla, Missouri. Dr. Curtis L. Wilson, Dean. Professors C. Y. Clayton, Roy Bremer, Instructors. Courses in photomicroscopy and photomicrographs given as part of the work required for a degree in metallurgical engineering and civil engineering. Course takes from 18 to 36 weeks, one to five hours a week.

NEBRASKA

STATE TEACHERS' COLLEGE, Kearney, Nebraska. D. E. Fox, Instructor. Theory and

Practice of Photography. Course is built around photography as a hobby, has no prerequisites and is not technical. Course fee \$2.50, but when enrolling general resident college fees amounting to approximately \$22 must be paid.

THE UNIVERSITY OF NEBRASKA, Lincoln 8, Nebraska. Photography: basic principles and techniques of camera. Pictorial Journalism; practice in use of cameras, developing, printing and enlarging news pictures, along with elements and mechanics of news photography; second semester offers editing of pictures and problems of reproduction. Special provisions for admission of veterans.

UNIVERSITY OF OMAHA, Omaha, Nebraska. Al Bliven, Instructor. Practical Photography, Advanced Photography, motion picture, darkroom technique. Courses offered for adults who are seriously interested in the study of photography for use in industry, commercial art, advertising or as a hobby. Tuition \$12 for each course. Two hours or more a week for 10 weeks.

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NEW JERSEY STATE TEACHERS COLLEGE, Glassboro, New Jersey. Visual-Auditory Aids to Education required one semester, 2 points credit. Other courses offered as electives with credit include: Practicum in Visual-Auditory Aids; the Radio as an Educational Instrument, and a course open throughout the year in Photography for Teachers. The instructor is Assistant Professor Anna K. Garretson.

NEW YORK

NORTH SENIOR HIGH SCHOOL, Binghamton, New York. Lester L. Cole, Instructor. Industrial Arts Photography. Elective course for senior year high school students; daily classes. A new class begins each September and January. Evening course offered to adults. These courses involve not only basic photography but the advanced phases also.

BROOKLYN INSTITUTE, Department of Photography, 30 Lafayette Avenue, Brooklyn, New York. Lectures and demonstration. For further information contact the Department of Photography.

BROOKLYN MUSEUM ART SCHOOL, Eastern Parkway, Brooklyn 17, New York. Five courses: Fundamentals and Advanced Techniques, both taught by Herman deWetter. Portraiture and Retouching, both taught by Helene Sanders. Commercial Techniques, taught by Siegfried Guterman. News Photography, taught by Leo Lieb. Tuition for Portraiture and News Photography courses: \$36.00 for term of 15 sessions. Tuition for other courses: \$31.00. Evenings, 7:00-9:30. Lecture-demonstrations and discussions. Fall and Spring terms. Courses approved by New York State Department of Education. Catalogue on request. Augustus Peck, Supervisor.

CENTRAL BRANCH Y. M. C. A., 55 Hanson Place, Brooklyn 17, New York. J. Gislain Lootens, F.R.P.S., Instructor. Fundamentals of Photography: begins September 30; meets Monday evenings for 15 weekly sessions of 2½ hours each; \$30 per course. Advanced Technique: begins October 1; meets Tuesday evenings for 15 weekly sessions of 2½ hours each. Both these classes repeat in February. Also a period for personal problems from 7:30 to 8:00; \$35 per course. Portraiture and Retouching: Friday evenings, 8 sessions—limited group, \$30. Registrations by mail are accepted, with \$5 deposit on each course.

ST. LAWRENCE UNIVERSITY, Canton, New York. Alfred Romer, Instructor. Physics Department offers course which is covered by regular college tuition. Some chemicals and photographic supplies furnished the student as well as enlargers, printers, etc. Darkroom facilities.

QUEENS COLLEGE, Flushing, New York. Physics Department offers Photography under Professor D. E. Kirkpatrick. Course is general, and designed to present the fundamentals necessary for photographic work in the many fields of scholarships in which photography is

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COLGATE UNIVERSITY, Hamilton, New York. The Art and Science of Photography taught by C. L. Henshaw and A. R. Krakusin. Day classes offering during Fall term, 2 lecture and 6 laboratory hours a week for 16 weeks. Further information from Mr. Henshaw.

BARNARD COLLEGE, Columbia, University, New York City. Prof. Agnes Townsend, Instructor. Department of Physics offers course in photography; Spring term of fifteen weeks; one lecture and 4 laboratory hours per week. The tuition is \$72 if taken separately from college curriculum.

ADOLF FASSBENDER STUDIO, 853 Seventh Avenue, New York City. Adolf Fassbender, Instructor. Individual and small group instruction in all phases of photography. Instruction is by appointment only.

METROPOLITAN VOCATIONAL HIGH SCHOOL, Oliver, Oak, and James Streets, New York City. Complete course in all phases of commercial photography. Color, action, copying, printing, developing, still life, commercial, portraiture, retouching, enlarging.

NEW SCHOOL FOR SOCIAL RESEARCH, 66 West 12th Street, New York City. Berenice Abbott, Instructor. Basic photography offered in fall term. Advanced photography offered in spring term. Tuition \$30 per course; 2 hours a week for 15 weeks. These classes are conducted by the workshop method with field trips and a considerable amount of practical work in the darkroom. The objective is to present photography as a living means of expression in the modern world.

PHOTO LEAGUE, 30 East 29th Street, New York City. Courses in Basic and Advanced Photography; 12 weeks, \$20 and \$25, respectively. Fee includes access to darkrooms and equipment. The union of practice and theory is the important aspect of Photo League teaching methods. Write for information.

THE SCHOOL OF MODERN PHOTOGRAPHY, 136 East 57th Street, New York City 22. Supervised studio and laboratory instruction in Portrait Photography. General Commercial Photography, Color Photography. These may be taken separately or combined. All courses include fundamentals and retouching. Approved by Veterans Administration. Certificate in Photography awarded.

STUDIO SCHOOL OF PHOTOGRAPHY, 156 West 13th Street, New York City 11. Erle Buckley, Director. Pictorial photography, elementary and advanced photography—all phases—individual instruction. Student is required to do all his own work under direction of instructor. Every effort is made to make the laboratory the same as his home darkroom. All materials supplied by school. Average student usually covers course in 20 sessions which gives him the theory and practice of photography. Day and evening sessions. Tuition \$100 for 10 sessions, 2 hours each.

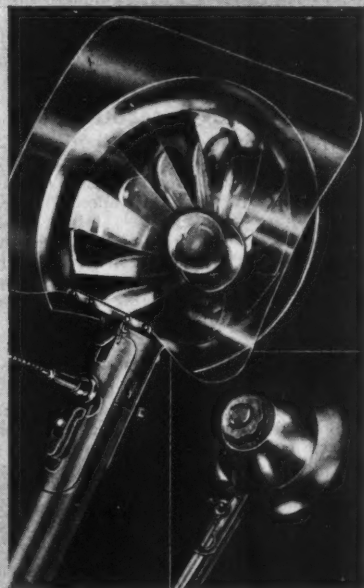
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YOUNG MEN'S HEBREW ASSOCIATION, Educational Department, Lexington Avenue at 92nd Street, New York City 28. Courses in Elementary, Intermediate and Advanced Photography given in the evenings. Fall schedule not yet determined; however, course is given for three hours a week and consists of both darkroom and studio work. Tuition is \$25 for the term, which lasts four months, one night a week. The Course in Advanced Photography is accredited by the State Department of Education. Further information may be obtained from the Educational Director of the "Y", William Kolodney.

KODAK CAMERA CLUB, Kodak Park, Rochester 4, New York. Courses in photography given to club members, who are also employees of the company. Information may be obtained from William Holland.

ROCHESTER INSTITUTE OF TECHNOLOGY, 65 Plymouth Avenue South, Rochester 8, New York. The Department of Photographic Technology offers two-year courses in Basic Photography and in four major curricula: Color Photography, Portrait Photography, Commercial-Illustrative Photography and Photographic Technology. Applicants are expected to be high school graduates and must take entrance examinations. Two years of 38 weeks each; year begins in September. Tuition and fees are \$304 a year. Registrations are closed for 1946 and 1947.

NORTH CAROLINA

WOMEN'S COLLEGE OF THE UNIVERSITY OF NORTH CAROLINA, Greensboro, North Carolina. Physics Department offers Photography and Advanced Photography: one lecture hour and two 3-hour laboratory periods per week. These two courses may be taken with the regular college curriculum or alone, and there are no required prerequisites. Offered in Fall and Spring terms, day classes. Anna Joyce Reardon, Instructor.

OHIO

BALDWIN-WALLACE COLLEGE, Berea, Ohio. Dr. F. B. Dutton, Instructor. Photography as a Tool and Avocation. Elementary course teaches developing, printing and enlarging; attention given to depth of field and exposure. Advanced work includes densitometry, color sensitive materials and special problems. Lecture and laboratory hours. Tuition \$10 per credit hour; 4 hours a week for 12 weeks.

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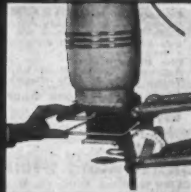
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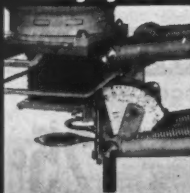
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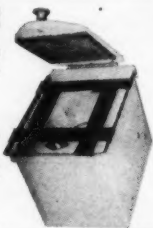
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CLEVELAND PHOTOGRAPHIC SOCIETY, 323 Caxton Building, 812 Huron Road, Cleveland 15, Ohio. Merrill A. David, Director. Theory and practice of photography. Two semesters of 14 weekly classes, beginning October 1. Tuition is \$10 a semester, plus \$1 lab. fee. Send for application blank.

FENN COLLEGE, Cleveland 15, Ohio. Charles Shipman, Instructor in Photography. Theory and Practice of Photography, Camera Technique, Photographic Chemistry. Dark-room Procedure, Portraiture, Projection, use of filters, toning. Offered evenings by Fenn College Technical Institute. \$19.25, plus \$2.50 lab. fee; same second semester. Certificate in photography given. Term is 18 weeks, 2 hours a week.

OHIO STATE UNIVERSITY, Columbus, Ohio. Department of Photography offers: Photography 511—Fall and Spring quarters, open only to upper classmen; 2 lecture hours and 6 hours laboratory per week; teaches fundamentals of photography, cameras, developing, printing, etc. Photography 515—Autumn quarter, not open to freshmen; 2 lecture hours and 4 hours of preparation per week; motion picture work with special emphasis on 16 mm. Photography 625—Winter quarter, 2 lecture hours and 6 laboratory hours per week; scientific photography designed for the science student. Open only to upper classmen. Photography 650—winter quarter, 2 lecture and 6 laboratory hours per week, continuation of Photography 511 or 625. Enlarging, reduction and intensification of negatives, toning, portraiture and photo-engraving. Photography 699—Autumn and Winter quarters, minor problems in photography; conference, library and laboratory work. Prerequisite Photography 511 or 625, 650, 15 hours of chemistry and/or physics, and consent of instructor. It is not possible for a student to major in photography.

HIRAM COLLEGE, Hiram, Ohio. Dr. Donald Dooley, Instructor. Course designed for laboratory worker who will need photography as a scientific tool; also for students interested in amateur aspects. Write registrar for further information.

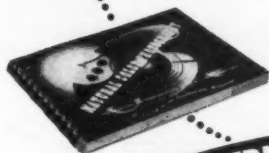
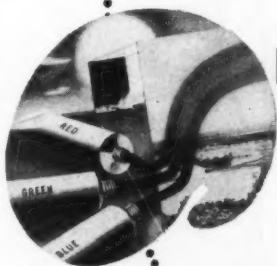
OVERLIN COLLEGE, Oberlin, Ohio. Chemistry Department offers a course in photography. J. C. McCullough, Instructor. Second semester only, one class hour and six laboratory hours per week. The course is intended for science majors and includes work with the sensitizer and densitometer as well as developing, printing, enlarging, copying, lantern slide making, shutter speed testing, exposure meter calibration, photomicrography and color transparencies. The College also has a strong Fine Arts department with studio courses in composition, drawing, color harmony and many others. Tuition \$200 per semester for full college work.



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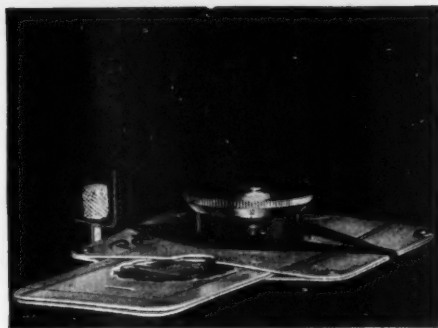
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MIAMI UNIVERSITY, Oxford, Ohio. John Dome, Instructor. Elementary Photography; Advanced Photography; \$40 per semester (includes full schedule of courses). 16 weeks, 2 hours a week. Laboratory facilities.

WESTERN COLLEGE, Oxford, Ohio. Photography course taught by Dr. Yale K. Roots during Spring term. Tuition of \$500 covers complete schedule of courses. 2 credit hours are given at completion of course. Consists of 1 lecture and 3 laboratory hours per week.

WITTENBERG COLLEGE, Springfield, Ohio. Department of Chemistry offers course in Metallography and Photo Micrography. Full information may be obtained from Dr. John W. Barker, Head of the Department of Chemistry.

HEIDELBERG COLLEGE, Tiffin, Ohio. Kathryn M. Kalbfleisch, Instructor. Elementary Photography, first semester only. Emphasis placed on taking photographs and on laboratory work in printing and enlarging. Two lectures and two laboratory hours; 18 weeks. Tuition \$260 includes full college course.

OKLAHOMA

THE UNIVERSITY OF OKLAHOMA, Norman, Oklahoma. Fundamentals of Photography, News Photography and Advanced News Photography, taught by Truman Pouncey, Asst. Professor of Journalism. Composition in Photography taught by Leonard Good, Professor of Art.

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OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE, Stillwater, Oklahoma. Offers 4 courses: Elementary, Advanced, Special and Movie Photography, taught by Haskell Pruett. Elementary Photography is a requirement for the others, and is taught every semester and Summer; 2 lecture hours and 4 hours of lab work per week. Photographic Optics is taught in the Physics Department, and Camera Craft is taught on alternate semesters by the Shops Department. Photographic Art is offered by the Art Department.

OREGON

LINFIELD COLLEGE, McMinnville, Oregon. Prof. H. E. Hewitt, Instructor. Theory, use of camera, enlarging, printing, lantern slide making, etc. Prerequisite: high school physics or chemistry. Tuition \$132 per semester for full college work or \$8 per credit hour if full course is not taken. 18 weeks per semester, 2 hours a week, 2 credit hours.

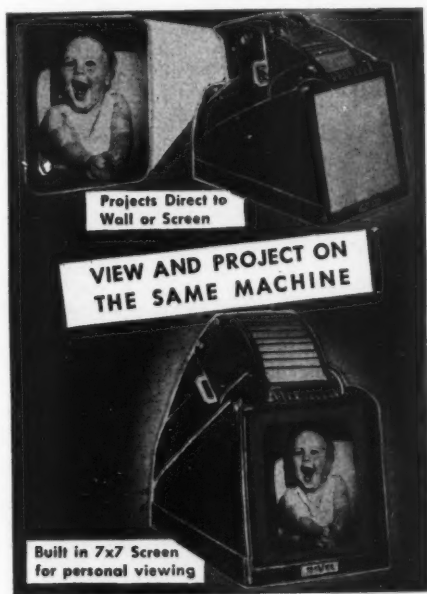
UNIVERSITY OF PORTLAND, Portland

3, Oregon. Elementary Photography taught by Rev. Richard D. Murphy along with regular college curricula. Consists of 2 lecture hours and 2 laboratory hours per week for 32 weeks. There is a \$5.00 lab fee in addition to the regular tuition. Six semester hours credits are offered.

PENNSYLVANIA

THE SCHOOL OF MODERN PHOTOGRAPHY, New York. Hans Kaden, 6 Latham Parkway, Melrose Park, Philadelphia, Pennsylvania, Instructor. Club courses in advanced pictorialism, creative photography and portraiture. Write for further information. Private instruction by special arrangement.

UNIVERSITY OF PENNSYLVANIA, College Collateral Courses, Philadelphia, Pennsylvania. Asst. Professor I. C. Cornog, Instructor. Course is not concerned with photography as an art, but rather with basic technical ideas and their application to photography. Work is suited to background and needs of registrants. Ordinarily offered as an evening course, 2 hours



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lecture and discussion per week, 2 semester-hours college credit. Tuition \$25 for 16 weeks. Course given only if there are at least 12 registrants.

DUQUESNE UNIVERSITY, Pittsburgh, Pennsylvania. No courses in photography are offered, but some attention is given to the subject in their journalism program.

YORK CAMERA CLUB, 273 W. Market Street, York, Pennsylvania. Address correspondence 329 Liberty Court. General course in photography. Tuition \$5 plus membership in the club. Session is 10 weeks, 3 hours a week. Designed to meet the needs of residents of York and vicinity.

TEXAS

McMURRAY COLLEGE, Abilene, Texas. Offers Elementary Photography 120, as a course to familiarize the student with the basic principles of composition, use of equipment, etc.; 2 lecture hours and 3 lab hours per week. Elementary Photography 121 teaches enlarging, still and cine, including composition, slide-making and amateur movies; editing and visual education; 1 lecture hour and 6 laboratory hours per week. Three semester hours credit in each course.

MARY HARDIN-BAYLOR COLLEGE, Belton, Texas. Rachael A. LaRoe, Instructor. Photography course offered with three semester hour credit. Tuition \$16 with lab fee of \$5.00.

EAST TEXAS STATE TEACHERS COLLEGE, Commerce, Texas. Two courses offered by Dr. W. W. Freeman: Photography given in Industrial Education Department; Audio-Visual Education. Each consists of a 3-semester hours lecture and 4 hours required laboratory. Both courses run 18 weeks in Fall and Spring. Cost is \$37.50 for a semester, including books and use of library and laboratory.

SOUTHWEST PHOTO-ARTS INSTITUTE, 6609 Hillcrest Avenue, University Park, Dallas 5, Texas. S. D. Myres, Jr., M.A., Ph.D., LL.D., Director, offers individual instruction in Basic Photography, Commercial Portraiture, Retouching, Oil Coloring, and Natural Color for beginners and advanced students. Fees average 80c an hour; slightly higher for Natural Color. Fees include chemicals, rental on cameras, use of camera and dark rooms; paper, film are extra. The Institute is approved for photography study by discharged veterans. Descriptive folder on request.

SOUTHWESTERN UNIVERSITY, Georgetown, Texas. Photographic Composition; analysis of photographs relating to line, light, and shadow, technique and procedure. Use of photographs in advertising, industry, news, decoration. 3 lecture and 3 laboratory hours a week; 3 credit hours per course. No prerequisite.

UNIVERSITY OF HOUSTON, 3801 St. Bernard Street, Houston 4, Texas. Photography is offered as a vocational program as well as an accredited Junior and Senior College course. A student may major in photography



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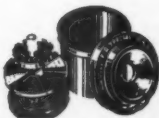
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if he wishes. Further information about courses offered may be obtained from F. W. Sieders, Photography Instructor.

TEXAS COLLEGE OF ARTS AND INDUSTRIES, Kingsville, Texas. Elementary and Advanced Photography taught by A. F. Gross, Director of Industrial Arts Department. Offered during Fall and Spring terms, day classes; credit hours given so that student may major in photography.

PARIS JUNIOR COLLEGE, Paris, Texas. Theory and practice of exposure, developing, printing, and enlarging. Advanced photography. Eighteen weeks, 6 hours a week, terminal credit of 3 semester hours. Tuition \$10.00. Laboratory facilities.

PRAIRIE VIEW UNIVERSITY, Prairie View, Texas. Fundamentals of photography. Students may enroll during regular session as special student, paying tuition fee of \$8 for 4 semester hours of credit.

VIRGINIA

VIRGINIA STATE COLLEGE, Petersburg, Virginia. Some instruction in photography is offered in the Visual Education Course, with Samuel A. Madden as instructor. Further information from registrar.

WASHINGTON

EVERETT JUNIOR COLLEGE, 25th and Oakes Avenue, Everett, Washington. Offers classes in photography covering fundamentals of the camera, developing and printing, portraiture and negative retouching, photographic chemistry. Also classes in News and Commercial Photography, and Amateur Motion Picture Photography. The instructor is Edward Boyle.

WHITMAN COLLEGE, Walla Walla, Washington. Photography course under the instruction of I. E. Highberg was offered before the war and is expected to be continued again. Offered to special students as well as students carrying full courses at the College. Spring semester, 2 credit hours given; further information from registrar.

WEST VIRGINIA

WEST VIRGINIA UNIVERSITY, Morgantown, West Virginia. Department of Journalism offers course in news photography. Department of Arts and Sciences offers course in elementary photography. Either course may be carried by regular West Virginia University students, without extra fee.

WISCONSIN

UNIVERSITY OF WISCONSIN, Extension Division, 623 West State Street, Milwaukee, Wisconsin. Has offered local classes in photography in the past, as well as correspondence courses. At least one course is expected to be given during the second semester of 1947.

CANADA

UNIVERSITY OF TORONTO, 5, Canada. The Department of Applied Physics gives instruction in photography to students in Civil
(Concluded on page 147)

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PRODUCTS

35mm Reflex Camera

THE Bolsey 35mm. Reflex Camera was designed by Dr. Jacques Bolsey, president of the Bolsey Corporation of America, prior to 1939. Several tests series were made in Switzerland during the war and the camera was marketed in Switzerland and in Europe under the name of Alpa. It is now being imported into the United States and distributed through regular photographic distributors under the trade name Bolsey Reflex.

Some of the features are as follows:

Although maintaining the candid camera shape and size, it provides for reflex focusing on ground glass, being the narrowest reflex thus far seen; double curtain focal plane shut-



ter with shutter speeds of 1 second to 1/1000; interchangeable lens mounts with lenses 1:2.9 and 1:1.8—50mm; split image superimposed coupled rangefinder for direct focusing when reflex system is not used; standard viewfinder for snapshots when reflex focusing is not used; uses standard 35mm cassettes—36 exposures; leather covered, chromium trimmed. Accessories are available.

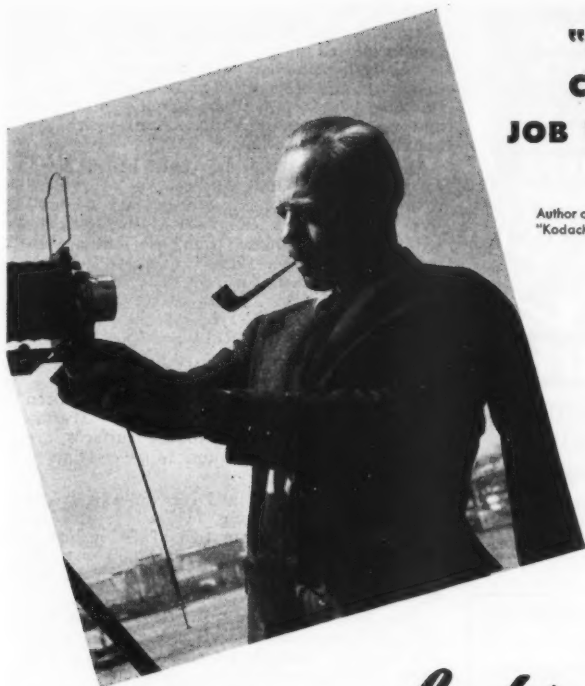
Both cable release and synchroflash are attachable to the release button.

The approximate list price to the consumer of the camera with 1:2.9 lens is \$367 including excise tax, and the approximate list price to the consumer with 1:1.8 lens is \$536 including excise tax.

For further information write to the Bolsey Corporation of America, 118 E. 25th Street, New York 10.

Kodachrome Movie Filter

THE Wollensak Optical Company, Rochester, N. Y., has added a new Kodachrome Type A Filter to its line of filters for 8mm and 16mm motion picture lenses. Offered in a complete range of sizes to fit all Cine lenses of Wollensak manufacture, the Wollensak Kodachrome Filter is now being produced in limited quantities only.



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JOB WITHOUT ONE"**

says FRED BOND

Author of the popular and authoritative new book,
"Kodachrome and Kodacolor from All Angles"

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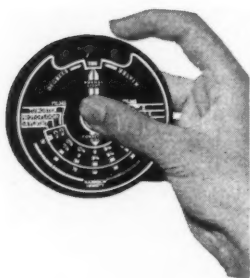
Your new Harrison Light
Corrector is proving
every day its efficiency
in helping produce more
uniform color balance
and proper saturation
under all usable light
conditions. I wouldn't
be caught on the job
without one!

Sincerely,

Fred Bond

THE HARRISON *Light Corrector*

MAKES TRUE NATURAL COLOR PICTURES AS SURE AS BLACK AND WHITE



No longer do you have to guess about your color pictures. With the Harrison Light Corrector you have true control of the color content of light. You can load your camera with any type of natural color film and use it in any light—indoors or out—where you could use black and white film.

You can do this with any standard still or movie camera. And you can be sure, when you do it, that your pictures will be true—the way you want them. Originally created for Hollywood Studios, it took ten years to perfect and simplify this Light Corrector for amateur use, but it's ready for you now at your dealer's. See it today. If he should be temporarily out of them, send for handsome illustrated circular.



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include developing, vaporating,
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Book by Haz

IMAGE MANAGEMENT, Nicholas Haz' long expected book on picture composition especially for photographers has now appeared under the author's own imprint. It clarifies the puzzle of composition in only 140 pages and with one hundred illustrations which are mainly diagrams in line.

Haz' successful course is here boiled down to its essentials and ought to be of great help to anyone who is hampered by lack of positive knowledge of composition and lack of self-confidence. Order from the author directly at P. O. Box 1555, Cincinnati 1, Ohio, or from MINICAM PHOTOGRAPHY, Book Department, 22 East Twelfth Street, Cincinnati 10, Ohio. Price \$3.50 by check or money-order (post free) or C.O.D. plus postage.

Single and Twin Surface Print Dryers

TWO new portable print dryers have been announced by Fedco Products, 37 Murray Street, New York. The drying surfaces are made of polished aluminum to give prints a smooth finish when dry.

The Fedco Twin Print Dryer has two drying surfaces, each measuring 11½ x 15", and accommodates eight 5x7" or two 11x14" prints at one time. It uses approximately 200 watts of current, either AC or DC. List price of the dryer is \$10.95, tax included.

The Fedco Single Print Dryer has one 11½x15" drying surface. It uses approximately 100 watts of current, either AC or DC. List price is \$7.75, tax included.

Characteristics applying to both dryers include: accommodation of removable ferrotype plates; both dryers are equipped with clips to hold these plates in place. Heat is kept at an even temperature, drying prints of all weights rapidly. The canvas may be quickly and easily removed for washing.

Easel

THE MICROMAT EASEL is adjustable up to and including 11"x14" sized prints. The baseboard is of molded bakelite.

Steel paper clips are designed to permit positioning of the paper on any part of the easel base, automatically affording a 3/16" border. Larger sized borders are readily obtained by making use of the calibrated scale on the frame. Rack and pinion control assures parallel movement of the spring steel masking bands. A product of the Airequipt Mfg. Co., 339 N. High St., Mt. Vernon, N. Y.

Fixed Frame Easel

THE FIXED-FRAME EASEL is constructed entirely of heavy gauge steel. The center plate is white for pre-focusing, with strongly hinged grey crinkle-finished panels on both sides. One side contains three openings for 2¼x3¼, 4x5, 5x7; the other contains an opening for 8x10. Margin guides assure accurate ¼" borders. Rubber "feet" on both sides prevent accidental movement while enlarging. This easel is also a product of the Airequipt Mfg. Co., 339 N. High St., Mt. Vernon, N. Y.

The new shockproof **KALART**
Synchronized **PRISM RANGE FINDER**
 now available for these famous

AMERICAN MADE
 PRESS CAMERAS

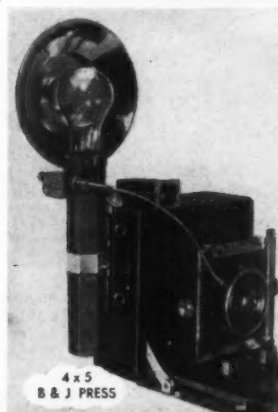


SPEED GRAPHICS
 Anniversary or
 Miniature

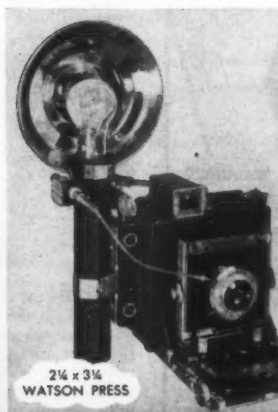
With a Kalart Prism Range Finder installed on your camera you are assured of automatic accurate focusing instantly and without guesswork. A ground and polished optical PRISM (exclusive with KALART) reflects a brighter, non-fading image, resulting in needle-sharp negatives which can be "blown up" to great magnification. And yet the KALART focusing operation is so simple any beginner can get perfect results.

See your dealer today about having a KALART Range Finder installed; or if you are ordering one of the cameras shown on this page, order it *complete* with KALART Range Finder and Focuspot factory installed.

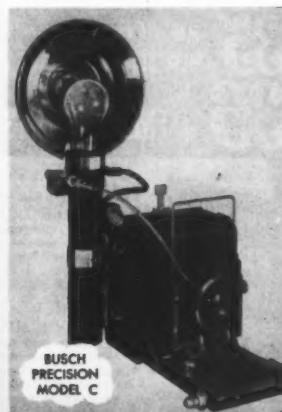
For complete description of the Kalart Range Finder and its war-born accessory, the *Focuspot*, for focusing in darkness, address KALART, Dept. C-9, Stamford, Conn.



4 x 5
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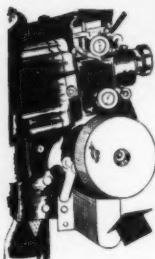
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BUSCH
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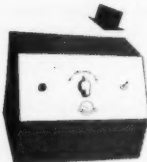
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SOUND HEAD plus
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IMPORTANT

You must use 2000-ft. Reel Arms to make room for the new Sound Head. Their cost is as follows depending on the make of your present projector:

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36 3 1/4" x 4" **ENLARGEMENTS**



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Kit for Making BW Prints from Color Transparencies

COLOR photographers who want black and white or sepia prints from transparencies can now make them in as little as fifteen minutes from exposure to dry prints. No we're not pulling your leg. It's a method of making reversal prints on waterproof paper made available by Grant Photo Products, Inc.

Processing steps include immersion in four chemicals plus three short washes. Because the emulsion is coated on a waterproof base the immersion time in the chemicals as well as the washes is materially reduced. The total time required to process the prints is five minutes and drying time in a room with warm circulating air is about ten minutes.

The paper is panchromatic and faster than the average enlarging paper. It has a smooth luster finish. Finished prints can be either sepia or black and white, depending on the fourth chemical used. A bottle of each is included in the kit. The Grant Panchro-Versal Kit is now obtainable from most local dealers, for \$2.89 tax included. If your dealer cannot supply the Kit you can write to Grant Photo Products, Inc., 401 Fourth Avenue, New York 16, N. Y., giving the name and address of your dealer.

Print Tong

THOSE who like to use print tongs will be interested in a new type of tong which is easier and safer to use than some of the older types. The Lip print tong does not require pressure to hold the paper, and only light pressure is required to open the tongs for grasping or releasing prints or single sheets of cut film. The spring, visible in the tongs in the center of the illustration, exerts enough pressure to hold



prints of any size firmly, but without damage. A bend at the bottom end of the tongs makes it easier to get the bottom "lip" under the print to pick up and is a further aid to the prevention of damage. The tongs are made of stainless, lightweight metal, with thin rounded ends. A hole near the top of the handle enables hanging the tongs when not in use. Lip print tongs are manufactured by Curio Photo, 1187 Jerome Avenue, New York 22, N. Y. The retail price is \$2.00 at dealers or Curio.

A "MUST" for People With 2x2 Slides!



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Model No. 235 holds
510 2x2 paper mounts,
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Buy Fedeco Viewer Slide Files and you get double convenience! Protected, handy filing for all your 2x2 slides — plus built-in switch controlled electric viewer for instantly, conveniently "seeing" them — all in one sturdy, compact, handsome unit!

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Distinctive, ingenious Fedeco Photographic Products. See them — buy them at your dealer's now!



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Xmas Greeting Negative Set

A NEW help for making attractive personal Greeting Cards is appearing in the form of the "Greetex" negatives. A "Greetex" negative contains six artistic Greeting Patterns. They are available in four sizes, the smallest permitting enlarging with as small as 35mm negatives. For contact printing one of the larger sizes would be selected. Simple instructions go with each set. A "Greetex" circular may be obtained from your dealer or write to the manufacturer, Frederick D. Fisher, 207 E. 84th Street, New York 28.

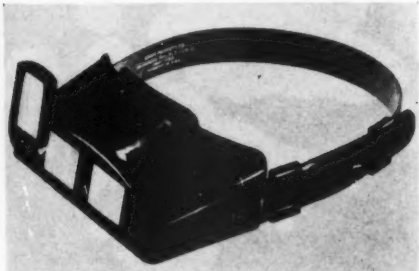
Acid Hardener

HUNT'S non-liquid acid hardener can be used for all types of films and papers and it has a 50% longer life. Its ability to dissolve more silver, permits a greater savings to be realized if the fixer is used for silver recovery.

Hunt's Acid Hardener contains no acetic acid and has no odor. When fresh the hardener is claimed to fix and clear films in 60 seconds. It maintains a constant pH (acidity) throughout the life of the fixer, and same hardness is assured in the finished negative. Packed in 5, 10, 20, and 50 gallon sizes, and larger if desired, it is shipped promptly from the Philip A. Hunt Company branches in Brooklyn, N. Y., Long Island City, N. Y., Chicago, Ill., Cleveland, Ohio, Cambridge, Mass., and Los Angeles, Calif. Samples are available upon request.

Auxiliary Lens on Magnifier

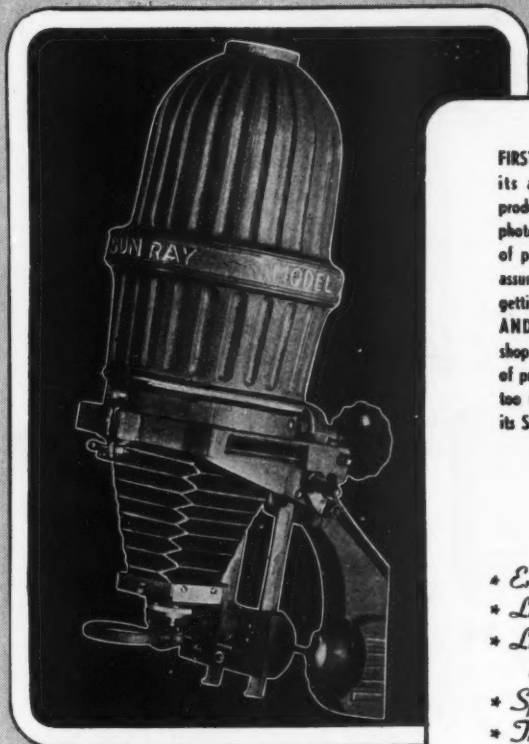
EDROY Products Company announces an addition to its line of Magni-Focuser Binocular Eye Loupes. The new model has a hi-power auxiliary lens which drops down in front of one eye in order to provide extra magnification when it is needed for some particularly precise



job. The manufacturer announces that the initial production of this new unit will be in focal lengths from 14" to 8" and from 4" to 2" with the auxiliary lens in place in front of one eye. These units will be designated as Models 13, 15, and 17, according to the power of the lens. Powers with the auxiliary lens in place run from 5.25 to 6.25.

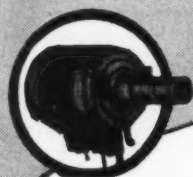
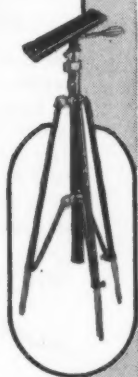
Available from your dealer or write Edroy Products Company, 480 Lexington Avenue, New York 17, N. Y.

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Send for our complete catalog listing 22 glamour subjects, 30 travel and comedy films, many of which are in full color, cine camera film, cameras, projectors and accessories. Price 25c. Projection length Kodachrome glamour sample from "Waikiki Hula," special at \$1.00. No. C.O.D.s.

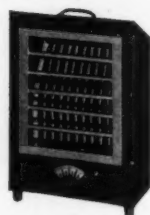
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Professional Film Cut Negatives. Size 2 1/4 x 3 1/4 each \$1.

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Strobo-lite

A NEW Super Power Strobo-lite has been announced by Wilcox Photo Products, 7282 Beverly Blvd., Los Angeles, California, producers of Wilcox Flash-O-Graph. Available in three different units with single double or triple flash lamps, the new Wilcox Super Power Strobo-lite features the latest GE sealed beam flash tube. This GE Sealed Beam tube is guaranteed for over 10,000 flashes, and many of these tubes have already been flashed over 80,000 times.

Each flash tube of the Wilcox Super Power Strobo-lite has a light output approximately equal to a number 22 bulb at 15 feet with black and white film. Since the total dura-



tion of the flash is less than 1/10,000 of a second the entire amount of light reaches the film at even the highest shutter speed.

The Wilcox Super Power Strobo-lite synchronizes instantly to any shutter equipped with flash gun and to all new type built-in flash shutters. The light of the Wilcox Super Strobo-lite has been daylight balanced and corrected for color. For current it may be connected to any AC outlet.

Wilcox Photo Products say they unconditionally guarantee each unit for 90 days from the date of purchase. List prices are \$175.00 for the single unit, \$250.00 for the double unit and \$300.00 for the three lamp unit. All prices subject to Federal tax.

Extinction Meter

AN improved model of the Wirgin Extinction Type Exposure Meter is now on the market. In small size, its pouch, meter and cover make a snug fit in a vest pocket. This Wirgin product is available at your dealer, or through the Camera Specialty Co., 50 West Twenty-Ninth Street, New York City.

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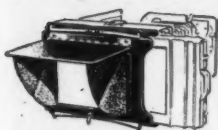
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New "MICO" SPRINGBACK

Makes a PRESS CAMERA of your pack-type camera



under hooded, spring-attached, ground glass focusing panel. No need to remove ground glass back each time.

Enables you to use graphic type double cut film holders or film pack adapters in your pack type camera. Sharp detail assured by ground glass focusing. Spring-back is attached like original single holder. Double film holder slides.

Easy-to-use and install SPRINGBACK
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2 1/4 x 3 1/4 (for 6 1/4 by 9 cm.) Post-paid **\$12.50**
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Kodachrome or Ansco Transparencies

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2 1/4 x 3 1/4 \$1.00 Each
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ENLARGEMENTS ANY SIZE TRANSP.

35MM 2X 60c 4 x 5" \$1.00
5 x 7" 2.50
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8 or 16MM film enlarged to 4 x 5 \$2.00 Each
Ansco Color 120 film developed and contact printed
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ANSCO COLOR FILM DEVELOPED

35MM—120 \$.75 per roll

CUT FILM

2 1/4 x 3 1/4—3 sheets 50c 6 sheets 75c
4 x 5 —3 sheets 75c 6 sheets \$1.00

5-Day Service—All Veterans Organization

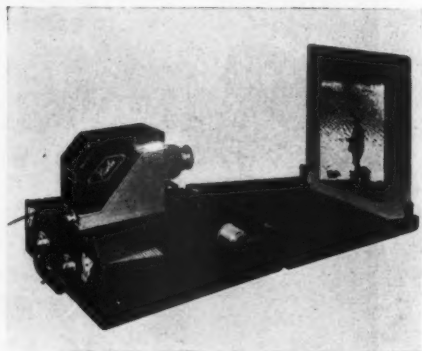
J. C. BENISON

5850 Hazelton Ave., Van Nuys, Calif.

2"x2" Slide Projector Has 2" and 5" Lenses

BIG, brilliant pictures are achieved in only two-fifths the usual projection distances in the new Model AP-1 35mm. and 2"x2" slide projector developed by Viewlex, Inc., Dept. 1, 35-01 Queens Blvd., Long Island City 1, N. Y. This new projector utilizes, for the first time in this country, an aspheric condenser system which gives the highest lumen output per watt input. This, coupled with the 2" Luxtar projection lens, produces a more brilliant image of a given size in only two-fifths the projection distance needed for a conventional long-focus lens. This latest development in aspheric lenses eliminates the former unsatisfactory conditions in short-focal projection—namely, distortion and aberration.

Use of this 2" Luxtar lens not only cuts projection distances in less than half, but also makes practical a new type of slide projector: a complete but compact projection outfit,



screen and all. In a case scarcely 13" square are the projector, slide carrier, accessory lens, Tuckaway screen and space for slide file and 180 slides. In use, this screen fits into the end of the opened case, so that no tripod or separate screen support is needed. The image is sufficiently brilliant that in broad daylight no shades are necessary. For larger pictures, the Tuckaway screen section snaps off, and the Viewlex with 2" Luxtar lens projects any size picture in two-fifths the customary projection distance. When a picture is to be projected over a large audience, the Viewlex is used with the interchangeable Luxtar 5" lens.

The 2" Luxtar projection lens is a color-corrected Anastigmat. The interchangeable 5" Luxtar is also a color corrected Anastigmat lens. A permanently polished large rhodium reflector and concentrated-filament 150-watt bulb complete the optical system.

Another model, the AP-3 comes separate from the case, although a case is supplied. It has a 5" Luxtar lens, and uses a 300 watt lamp. For further information write to the manufacturer.



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Protect your films.
Sta-brite removes,
with remarkable speed,
all dangerous dirt and oils from
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Light, of course, is made up of the three primary colors, red, green and blue, in varying percentages under varying conditions. The Harrison Light Corrector analyzes those percentages by a mere flick of the finger, and tells definitely and accurately, just what Light Corrector Disc to use to compensate for any excess of color when using color film.

Now, with the Harrison Light Corrector and its matched set of 22 Harrison Duraline Light Corrector Discs, you can use any type of movie or still camera—load it with any type of natural color film—and use it in any light—indoors or out—where black and white film could be used, and you will know just what filter to use to reproduce the colors the way the eye is used to seeing them.

Bayonet Sunshade for Rollei Cameras

BURLEIGH BROOKS, 120 West 42nd Street, New York, announces a new American made Bayonet Sunshade for all Rollei cameras with Bayonet mounts, including Rolleicord No. 2, New Model Standard Rolleiflex, and Automatic Rolleiflex. The sunshade is made of aluminum, finished in black. It fits outside of the bayonet mount, thus permitting the interchangeable use of all Rollei accessories when the sunshade is in place. Made to the same quality standards as the pre-war model, it lists at \$6.93 with case, including taxes.

Photo Oil Color Set Returns

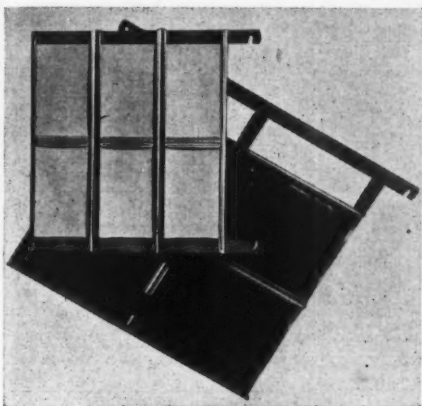
MARSHALL'S Photo Oil Color Set No. "O" has returned to dealers shelves. This \$1.00 set is quite similar to the pre-war No. "O" set, but there are up-to-the-minute changes in the list of colors. The new set consists of four $\frac{1}{2}$ " x 2" tubes of color (Check, Cadmium Yellow, Flesh, Chinese Blue), a roll of cotton, a bottle of Prepared Medium Solution, skewers and a direction leaflet. Manufactured by John G. Marshall, Inc., Brooklyn, New York.

Flash Battery

A NEW leakproof flashlight battery, designed for use in photo flash guns, is being manufactured by the Sterling Battery Company, New York. The retail price is 10c at dealers.

Roll Film Tank and Cut Film Hangers

TWO darkroom products developed recently are: 1. The Superior stainless steel adjustable developing tank for full 36 frames—35mm film and all sizes up to and including No. 116. 2. Superior stainless steel film developing hangers. Negatives are quickly inserted and re-



moved, and are kept in the hangers all through developing and fixing. There are two styles of hangers, one for tray developing, the other for tank developing. Both styles are made in three sizes, 2¼x3¼, 3¼x4¼, and 4x5. The roll film tank retails at \$8.50 each, while all sizes of hangers retail at \$1.85 each. Both products can be used for processing color film. For further details see your retail photographic dealer or write Fasfoto, Inc., Dept. MP, 2070 Reading Road, Cincinnati, Ohio.

School Expands

THE INSTITUTE OF DESIGN in Chicago, Ill., is expanding its facilities. A permanent home for the school has been acquired in the building which formerly housed the Chicago Historical Society at 632 N. Dearborn Street. To meet the needs of a greatly increased enrollment, the Institute of Design has been fortunate in augmenting its faculty by such men as James Davis, Princeton University, and Rainey Bennett, Chicago, both well-known painters; Arnold Ryan, former Art Director of Esquire and Coronet, who will teach advertising; Hugo Weber, Basle, Switzerland, student of the French sculptor, Maillol; Hin Bredendieck, industrial designer, former teacher at the New Bauhaus; and Harry Callahan, Detroit, who will assist in the photo workshop.

Color Processing

A NEW modern laboratory is opening in Southern California for the processing of Ansco Color 35mm and roll films as well as making prints from 35mm Kodachrome and Ansco Color transparencies in 35mm, 120 and 620 sizes. For information regarding prices and services rendered write Mr. Bill Drewery, Drewry Photocolor Corporation, 550 West Colorado Street, Glendale, California.

(Continued on page 154)

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ACTION SPORTS PICTURES wanted on all sports and recreational activities (indoor and outdoor). Send Black-White glossy and Kodachrome on approval to: Sportfoto Magazine, 1138 18th St., N. W., Washington 6, D. C. Enclose first class postage reject returns.

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WANTED—35mm Leica or Contax Outfit. Write, giving all details, Box No. A1, Minicam Photography, 35 Park Ave., New York 16, N. Y.

WANTED—16mm. Films, Cine Special, Bolex Equipment, 35mm. Ariflex, Cinephon, Bell & Howell and Eymos. Cineflex cameras, lenses, accessories. Have 2 new Kodak Ektar F3.5 compur rapid, \$28.00; 2 Kodak Anastigmat F3.5 compur, \$24.50; 4 1/4" Kodak Anastigmat F4.5 compur, \$42.50. Buy—Trade—Sell. Camera Mart, 70 W. 45th St., New York.

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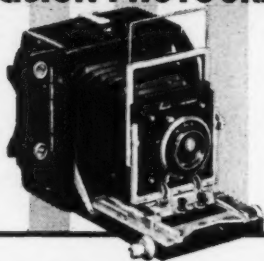
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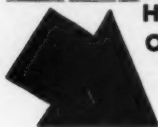
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SUSPENSE

(Continued from page 87)

universal appeal to the public can be a very powerful medium of persuasion. However, the creator of the film cannot lose sight of the fact that a moral or a message alters entertainment values. The public resents being preached to. However, messages can be so wrapped up in entertainment that the impression remains with the audience without consciousness of preachment.

All of Galsworthy's plays carried messages. But they were put forward entertainingly and the message sprang logically from the subject matter.

Too many amateurs fail to realize suspense or entertainment does not necessarily involve a lot of extravagant props. In "Lifeboat" our players were kept within the confines of a small boat. That, of course, was an extreme. In England, I did the picture "Juno And the Paycock" where all action took place in one room.

Create a situation and your props and backgrounds become secondary.

Pacing and film editing are highly important in a suspense picture. Not only should you have the scene in mind before shooting, but the pace of the whole picture. That sense of the whole pace comes from careful preparation far ahead of time. During rehearsals, tempo is established which has important results in the finished film. I work with the film editor during shooting and during the running of the daily 'rushes' where we see what we've captured on the film the day before. By the time the last scene is shot the picture is pretty well cut.

I'm partial to suspense pictures because I feel they are the most creative of all. To start with the concept of a picture and work out its plot intrigues to the end is exciting. Every picture can't be successful, but neither can they be too bad when they're carefully planned ahead of time.

While attending the current releases of "Rebecca," "Notorious" and "The Paradine Case," you can watch the application of these suspense-building devices.

BAD BACKGROUNDS ARE NO ALIBI

(Continued from page 81)

makes backlighting easy—and there is never any danger of your light spilling over your background. Although I used a brunette for my demonstration of this technique, you will find that a blond person is better suited for this particular set-up.

If you have a good looking rug, try posing your glamour subject on the floor and shooting down. Keep in mind, too, that a background arranged by sidelighting a stucco wall, particularly one that is rough, is always very effective.

Although beautiful objects do not necessarily make beautiful backgrounds, there are times when even trash can make an attractive background if you know how to use it correctly. Experienced photographers have developed a sense of seeing things not the way they actually appear to the eye, but the way they are going to register on the film. They know beforehand how their props will look under various lighting conditions and at different lens openings. And for those who do not know, the only way to find out is to experiment. I once tore a customer's bed apart to use his bedsprings for a background because there was nothing better available. Sidelighting the coils created a spectacular effect that more than justified the experiment. Another time I pulled out all the dresser drawers I could find in a house and pyramided them one on top of the other in four jagged columns. By playing the lights in between the irregular sized boxes, an unusually attractive out-of-focus background was achieved.

Rather than apologize for disturbing backgrounds, any amateur photographer with an atom of imagination has but to open his eyes to find more suitable background material in his own home than he can put to use in a lifetime. Oftentimes there are artistic background possibilities in the most unglamorous items in the house—as I have demonstrated in the illustration showing a new use for the lowly roll of toilet tissue.

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CAMERA CLUB

NEWS AND IDEAS

Now that cooler evenings are causing hypohounds the country over to begin filtering back to their darkrooms, Camera Club program planners again face the problem of scheduling activities that will insure good membership turnouts. Thanks to Samaritan spadework done by Secretary Don White, the program planning committeeman of the SPRINGFIELD PHOTOGRAPHIC SOCIETY (Springfield, Mass.) should find their work a little easier. In addition to showing just which programs drew the largest membership attendance, statistics-minded D. White uncovered the fact that programs dealing with black-and-white photography drew a yearly average of 57% of the club's 134 members; meetings devoted to color work pulled out 50% of the membership; and meetings combining the two resulted in 55% attendance. Program planners for other clubs might find it helpful to check back on the club's attendance records before setting up the '46-'47 program schedule.

Good news to nature photographers comes from the NATURE CAMERA CLUB of Chicago, sponsors of the recent Chicago International Exhibition of Nature Photography. So many inquiries were received by this club after the exhibition that it was decided to make associate membership in it available to all nature photographers outside the Chicago area. Associate members may attend meetings, enter the club contests (both prints and slides), receive club bulletins, and obtain criticism services. Those interested can obtain further information by writing Louise K. Broman, 6058 S. Troy Street, Chicago 29, Illinois.

According to *The News Letter* of the CENTRAL OHIO CAMERA CLUB COUNCIL, there's no shortage of models in their neighborhood. Here's a list of the models they booked up for a field trip: Several pretty girls from the "Miss Ohio State" contest, several character models, a small colored girl complete with pigtails, two small boys equipped with fishing poles and dogs, a palomino horse and a spotted pony, riders, two collie dogs, two girls in shorts with archery equipment, and several glamour models. No kitchen sink.

Month after month we read the bulletin published by THE WOMEN'S PHOTOGRAPHIC SOCIETY OF CLEVELAND with increasing interest and admiration. They have a whale of a program always—but it isn't their program that impresses us. It's their infectious enthusiasm, interest in their beginners, and what appears to be a rather unusual spirit of inter-club cooperation. Something tells us we'll all be hearing more about this group.

Highlight of the recent annual meeting of the PHOTOGRAPHIC GUILD OF DETROIT was the presentation of the 1946 Dasonville National Trophy by Michael Roll, Chairman of the National Activities Committee. The trophy was accepted on behalf of the Guild by prexy Elwood Armstrong.

Something altogether new is the DENVER COUNCIL OF CAMERA CLUBS, made up of seven Denver camera clubs who are coordinating their efforts for the purpose of securing a photographic center where clubs can meet and exhibit salons, issue a monthly bulletin, and promote an all-Colorado salon with sections for both black-and-whites and color.

Camera Clubs the country over are playing up the Small Print Contest Idea, not as a regular thing but as an extra curriculum activity. That brings a plan to mind. Everyone would like a "set" of favorites made by fellow club members. Trading large prints has a few followers but is just a lot of work and everyone knows it. Now, how about a nice set of little Pygmy Prints that wouldn't take much room and are easy to make . . . and what quality! A couple of the boys have started it and enthusiasm is spreading. Work up a couple of your best—with some extras as traders. Other Clubs please copy. Let's get together. *The Viewfinder*, CALIFORNIA CAMERA CLUB bulletin.

The PICTORIAL PHOTOGRAPHERS OF AMERICA announce two traveling shows ready for Camera Clubs. Bookings for the first, a 50 print show, should be made with Mr. Walter W. W. Jones, 327 East 18th Street, Brooklyn 26, New York. Bookings for the second, a 20 print, One-Man Show of Dr. Ruzicka, should be addressed to Mr. Reginald F. Wilson, 235 Villard Ave., Hastings on Hudson, New York.

After four years of inactivity, the DANVILLE CAMERA CLUB of Danville, Illinois, has been reorganized and from all indications the coming year promises to be a big one for Danvilleite camera hobbyists. Out in California-ia, are two new camera clubs we'd like to hear more about—the SAN LEANDRO CAMERA CLUB, and the HEALDSBURG CAMERA CLUB.

The ATLANTA CAMERA CLUB'S publication has us on the ropes. The cover photo reproductions are first rate, the editing is excellent, the printing beautiful. But what has us drooling is the paper stock on which the booklet is printed. Enamelled stock—the ethereal stuff of yesteryears that editors dream about. We dasn't even let our paper buyers see it; they're practically bald now.

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AXEL'S ANGLES

(Continued from page 90)

might wish for a little of the scene to have
been included on the upper and left sides.

Laughter

Here we have a picture that is techni-
cally well done. The original leaves noth-
ing to be desired in so far as exposure,
developing and printing is concerned.
Still—it gives me the uncomfortable feel-
ing that the young lady's toes are being
tickled. In itself that might be considered



Grant Duggins

a point in the picture's favor because
momentarily it provokes a sympathetic re-
sponse. But how long can anyone stand to
have his toes tickled? The eyes being
closed naturally hint of the intensity of
the light condition under which the pic-
ture was made, which also brings about an
adverse response to the picture. If the sun
glasses were over the eyes it would serve
to stimulate our imaginativeness as well as
subtly repeat the pattern of the two flowers
on the dress. The glasses would also help
to correct the split left eye. Regardless of
how well we may like taking candid pic-
tures, it is a good idea to be sympathetic
with the subject. Forcing a person to
laugh with the chin down is uncomfortable
as well as unflattering. If you doubt this,
hold up a mirror and try it yourself.

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Against the Sun

Here we have a picture that contains many of the faults found in the early efforts of the hobbyist who is striving to do something different. The idea is good, and technically the picture is fair. If the photographer were to make a study of fashion magazines, he would pick up a number of helpful pointers on how best to pose his models. In this picture the model's leg nearest the camera is too stiff, giving it an unpleasant muscular appearance above the knee. Her right hand is just visible between the leg and tree, creating an undesirable break in the lines of the body and clothing. The tree was well chosen but the picture should be trimmed through the tree on the left, and

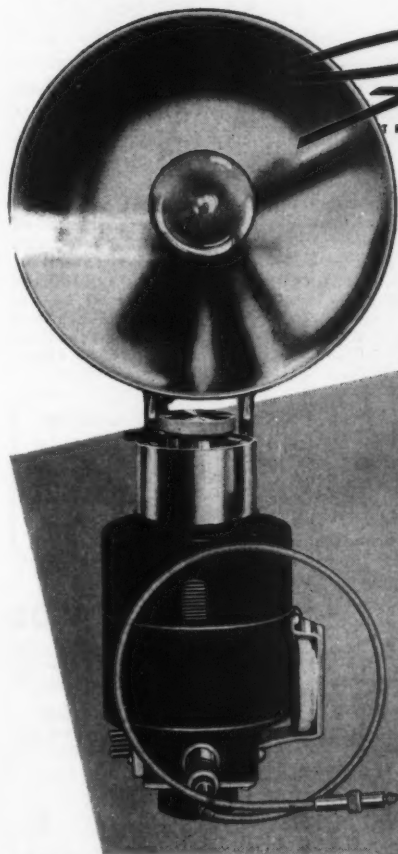
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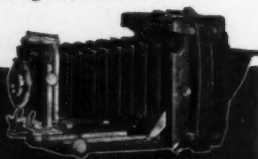
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the top should be cut at the apex of the "y" formed by the two branches of the tree against which she is leaning. This would eliminate the dead branches which, besides conflicting with the foliage on the other side, add nothing to the picture. I would also suggest that she turn her body slightly toward the camera in order to give a more flattering line to her shoulders. As it is, her shoulders appear very muscular due to the bright highlight and the low angle of the camera. To some, such attention to small details might seem to be hair-splitting. Yet in the last analysis it is the ability to observe little things that makes it possible to convert a good idea into a perfect picture.

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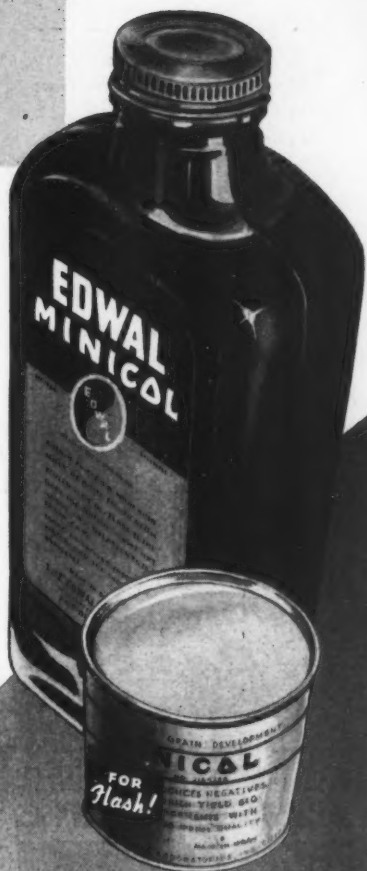
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MY ITCHIN' FEET

(Continued from page 67)

handy gadget.

Three books helped me more than any others: "Kodachrome and Kodacolor" by Fred Bond, "The Technique of the Picture Story" by Mich and Eberman, "Magazine Article Writing" by Brennecke and Clark.

One of the most important parts of a free-lance photographer's life is his contacts with people. Shyness is a distinct disadvantage and totally unnecessary. Everyone makes way for a photographer and most people will cooperate to the full. In all these months, I have met only two people who have refused to pose: a colorful old scissors-grinder in Connecticut, and the other was a commercial sign-painter in Florida. I have made it a rule never to sneak a picture, even if asking permission should mean no picture. Afterwards, most people will ask for prints. I promise to send contact prints, and do so. It seems to me that the least any photographer can do when he is getting free model service is to observe these little courtesies. Such things make it easier for the next picture-taker, too.

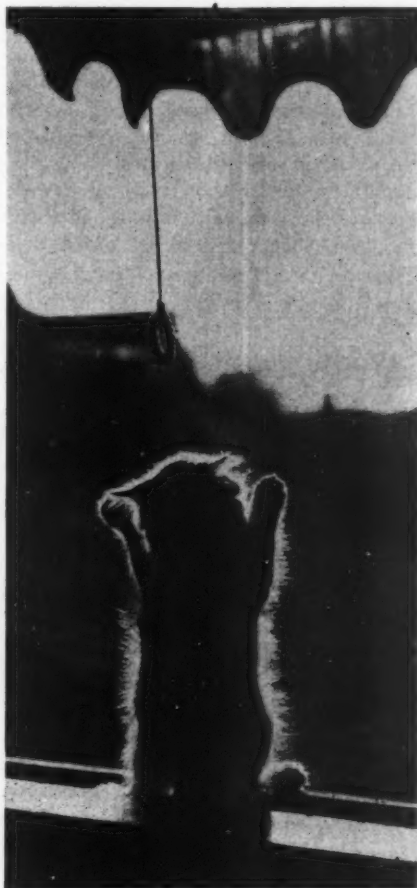
Is There Room for You?

Should other advanced amateur photographers try free-lancing? Is there money enough in it for a life career? Based on my own limited experience, I would say "yes" to both of these questions, if the veteran sincerely enjoys photography and/or writing, and if he has perhaps a year's financial backing available. The first year should see him able to accumulate a sizeable file of color and black and white pix at an agency, establish contacts, experiment with different types of photography and writing, perfect his ability to produce high-grade pictures. To speak personally again, in these months, I have been offered jobs in two camera stores, in a commercial darkroom, and in an advertising agency; also innumerable separate requests to photograph children,

homes, boats, and farm animals.

It is my opinion that in photography and writing, we have one of the few remaining occupations in which one's success is limited only by the amount of work one is willing to put into it, and by one's own abilities. Thus, it is a truly free-lance job, and any veteran, man or woman, properly equipped, should be able to make a go of it.

ALTHOUGH technically a poor picture, Gladys Relyea's photograph of a kitten has definite sales possibilities for two reasons. First, it attracts attention because of the kitten's pose which promises that something is "about to happen." Second, it pleases the eye because of the way in which the light shines through the kitten's fur, outlining its body.



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MICHAEL CONVERSA

(Continued from page 70)



a prize in an Associated Press contest.

Although most of his shots are newspaper pictures crammed with action, it happens that his favorite black and white still is an autumn pastoral scene of cowboys driving a herd of cattle. This was a routine assignment in connection with a feature story on cattle-raising. His favorite color shot, incidentally, is that of the lovely girl and the grapes which appears on the cover of *MINIGAM* this month.



Mike hopes to do more and more in color. "It's fascinating," he says. "I hope the day will come when newspapers and magazines will use it as freely as they now use black and white."

ALL MOONSHINE

(Continued from page 77)

posure. Both strips should be developed until no further action takes place; in fact, it is not a bad plan to make the two test strips and develop both at the same time. The test strips from the two negatives should be so adjusted that cloud and landscape develop evenly in the final, combined print.

With luck this may occur with the first print, but I usually find it requires at least three pieces of paper before a faultless picture results. Should some error have been made with the first exposure (such as incorrect shading in of the sky negative—the usual fault—or mistiming the two exposures) lightly fix the print and have it before you when making the next. This is a great help in avoiding the same error when making the next print. Any darkening of the print from the landscape negative should be done at the first projection, noting where this is necessary. Remember, there is a certain amount of risk when flashing in with white light after removing the landscape negative from the carrier. The same "means to an end" results if a matching oil color is applied afterwards to the surface of the finished picture, either by brush, or on a pad of cotton wool. The gradations of the clouds can also be altered by means of pigment.

I hope these notes will enable some readers to find possible future pictures among their old negatives by combining them with suitable moon-cloud negatives, work, which is not only interesting in itself, but may give you the satisfaction of seeing your picture hanging on a Salon wall to the mystification of those who wondered how you got such wonderful moonlight prints.

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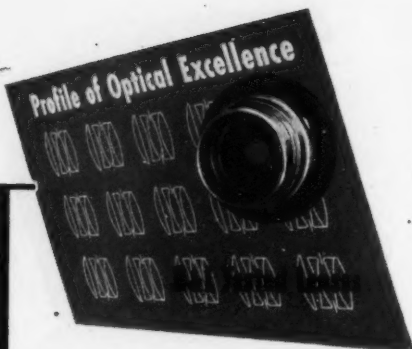
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BIG TOP DAYS

(Continued from page 29)

than the light coming through the canvas at matinees. Therefore it is generally wise to reserve a seat down front early and not try to shoot more than one ring at a time. . . .

For outdoor work I generally have my camera focus set at 10 feet, the shutter speed at 1/100 and the lens opening at $f:12.5$, with Plus-X film. Thus it is ready to bang away at anything that might pop up, and I am reasonably certain of getting a picture. Of course, I make adjustments in focus and exposure for closeups and planned shots.

An exposure meter is very useful, but it is often best to use it for calculating the proper exposure for a subject beforehand by measuring the light striking some object at the place where the actual subject will pose. Otherwise you may be taking an exposure reading of a clown who, hearing his band cue, runs into the big top before you have time to snap a picture.

EQUIPMENT

If you have or can dig up two cameras, take them along. Load one with color film, as you will find plenty of subjects for both. Unless you are using a flash outfit, load your camera with the fastest film obtainable for shooting under canvas.

In eleven years of taking circus pictures I have found a miniature camera the most handy for taking shots around the big tops. I have mostly used a Leica, with an $F:2$ lens. Many cameramen obtain excellent results with small reflex cameras which lend themselves to dramatic composition and speedy sharp focus.

Tripods, a suitcase full of plates and other large camera equipment may be in the way, unless you are a professional photographer on assignment. Performers have little time to pose between acts and you must take many shots on the run.

LET'S MAKE TITLES

(Continued from page 47)

ature than in nature itself,) and sunburst effects for titles.

A quick, but somewhat uneven fade-in or fade-out may be had by turning the lens iris from closed position to the required opening, or by starting with the lens wide open and closing down to the smallest stop.

The doors on the front of an old phonograph may be used for a good title effect. Mount pieces of cardboard with Scotch tape on the fronts of the phonograph doors. With crayons or other medium, draw the words of the main title across the door space, ornamenting to suit the mood and subject of the production.

Make a second or explanatory title and mount with Scotch tape against the louvres of the sound chamber inside the doors of the phonograph. With doors closed, start the camera and allow leader footage. With black threads, draw open the doors, smoothly and slowly to reveal the second title to the camera.

It is well to remember when choosing the title that it should be in harmony with the subject of the film. Variety in titles is limited only by imagination; and good titling is often half the show.



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AS OUR BOYHOOD IS, an 18-minute film on rural education for Negroes in the South, has been added to the library of Brandon Films, Inc., for rental and sale in 16-mm sound.

Comparing the worst rural education, the unequipped one-room schoolhouse, with the best as represented by the fully equipped Bruiton Heights School in Williamsburg, Va., the first consolidated rural school for Negroes to be built, "As Our Boyhood Is" points out that although progress has been made much still remains to be done. Bruiton Heights, by training its students in practical subjects such as home economics, carpentry, and machine work, as well as in the general academic field, exerts an influence beyond the confines of its walls educating its pupils to raise their standard of living and assume a role of useful citizenship.

A two-reel subject, "As Our Boyhood Is" was produced by Samuel A. Datlowe and photographed by Roger Barlow and Joseph Braun for the American Film Center, and is available for rental at \$3.00 per day and purchase at \$50.00 from Brandon Films, Inc., 1600 Broadway, New York City 19, and a network of co-operating regional film libraries.

CLEAN WATERS, a new 16-mm color and sound motion picture produced by the General Electric Company in co-operation with the United States Public Health Service, is now available for showings to civic organizations and other interested groups throughout the country.

With scenes of pictorial beauty, the film emphasizes the importance of clean waters as an essential natural resource. Then in contrast the effects of water pollution are shown: the destruction of wild life and recreational facilities, the deterioration of waterfront property, the spread of waterborne diseases such as typhoid fever, cholera, and dysentery. U. S. Public Health Service figures point out that pollution of waters costs the nation more than \$100,000,000 annually.

The methods of sewage treatment developed to prevent water pollution are shown in the film by animated drawings and pictures of the most modern sewer treatment plants in operation. It is pointed out that in 1945 there were 6,000 plants in operation, but the Public Health Service estimates that there is a pressing need for more than 10,000 new plants throughout the country.

Technically produced by the Raphael G. Wolff studios in Hollywood, the picture runs 27 minutes. Bookings can be made through local utility companies or General Electric Sales Offices.

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PHOTO SCHOOLS

(Continued from page 112)

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You don't pour this developer down the sink before it
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in that LIGHT and AIR have no detrimental effect on it.
Some of the guaranteed features of this product are:

- Can be used immediately upon being dissolved.
- No cooling devices necessary. The developer has a
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- Only the development of negatives decreases the de-
veloping properties. WILL NOT SPOIL WHEN NOT
IN USE.
- One gallon of this PERFECTED developer will outlast
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- LT-30: Soft working. For fine grain clear film, plates
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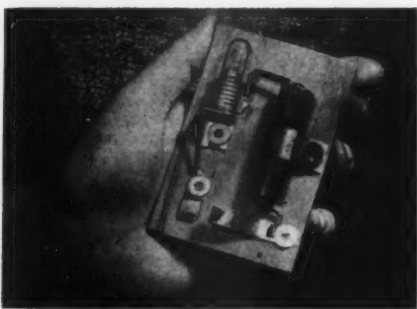
GADGETS, KINKS AND SHORT CUTS

Case For Filters, Etc.

TO bulk film users, the question of the use
of the metal cans in which the 27½ foot
lengths are packed often presents itself. I found
that one of these will make a holder for suppl-
mentary lenses, filters, and a measuring tape.
(Used with the supplementary lenses for
close measurement of distance.) Such a con-
tainer takes very little room in the camera
kit, and keeps all such extras together.—Henry
A. Stockert.

Flashbulb Tester

AN inexpensive, easily constructed unit for
testing the quality of flashbulbs before they
are used can be put together in a few minutes



and will prove its worth many times over. The
items needed to make the tester are as
follows:

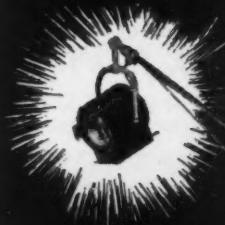
- 1 penlite cell, 1½ volts
- 1 panel lamp socket, screw base
- 1 2.0 volt panel lamp, .06 ampere
- 1 piece of wood 2½" x 3½"

Several short strips of metal, small
wood screws, washers, and short
lengths of copper wire.

The above listed items are arranged on the
piece of wood, fastened in place with wood
screws, and then wired up as shown in the
illustration. A removable battery mount can
be made by attaching pieces of metal at each
end of the battery for contact and support,
and wiring these pieces in the circuit.

It is imperative that the 2.0 volt lamp be
used since lamps of other voltage rating may
permit the flashbulb to fire, wasting the bulb
and burning your hand.

To test the flashbulb it is only necessary to
place the bulb so that one strip of metal con-
tacts the center contact and the other touches
the threads or shell. The lamp will glow if
the flashbulb is a good one.—P. Hoffman.



The DINKY BOOM

For Properly Lighting Motion Pictures,
Home Movies, Portraits and
Table-Top Photography

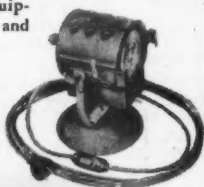
Something has been added... at the request of Hollywood Camera Men... to the Bardwell & McAlister line of Photographic Lighting Equipment... It's the Dinky Boom!

On motion picture sets, among the home-movie fans, and everywhere that fine photography is produced, the Dinky Inkie, that handy little 150 Watt Spot, has been standard equipment. Now its use has been made much more flexible by the Dinky Boom which makes an infinite number of lighting arrangements and angles easy to obtain. The Dinky Boom comes equipped with a standard Dinky Inkie Spotlite.

With the Dinky Inkie you can highlight portrait subjects by concentrating a smooth, graduated light exactly where it belongs. You can get the greatest degree of flexibility in modeling close-ups. You can eliminate shadows in dark corners and virtually "paint" with light that is under control at all times.

For fine photography there is nothing better than Bardwell & McAlister Lighting Equipment. For good work, the Dinky Inkie and the Dinky Booms are "musts".

This wonderful little spot operates with 150 watt T-8-DC globe; focuses from an 8 degree spot to a 44 degree flood. It has the same back and front handy focusing lever as the Baby Keg-Lites. With base removed, it fits any standard tripod. Total weight 2 1/4 pounds.



Check These Features THE BOOM

- 1 Maintains constant angle of adjustment in all positions up to 45° angle from vertical.
- 2 Boom has telescoping extension.
- 3 Thrust bearing with fibre friction disc at balance point holds boom rigid in any position without making thumb-screw adjustments.
- 4 B & M folding-leg-type stand.
- 5 Nine feet six inch extension.
- 6 Weight 17 pounds.

Write for literature describing the Bardwell & McAlister line of Photographic Lighting Equipment. There is a light for every possible need. Ask about the Senior 5000-watt Spot, the Junior 1000-2000-watt Spot, the Baby Keg-Lite 300-750-watt Spot, the Single and Double Brands, the Foca-Spot, Snoots, Barndoors and other light control accessories. Address Department 29-96.



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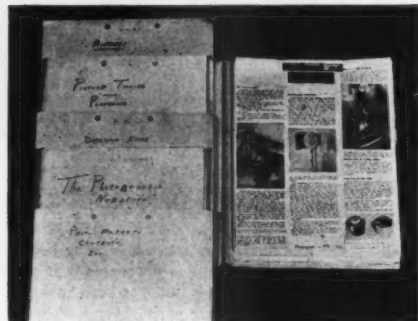
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Ready Reference Files

FROM current magazines I clip all articles, pictures, kinks, and photo ideas that are of present or possible future interest to me and file them in manila folders for ready reference.

Short articles are pasted to sheets of regular typing paper for easy filing. With the use of



"Acco," or similar fasteners, the clippings are fastened in the folders. Each folder is labelled as to its contents.

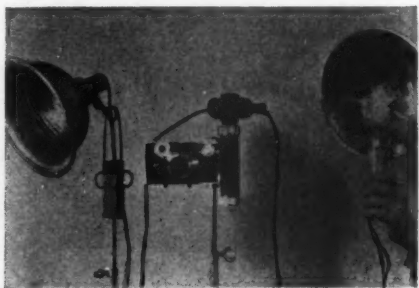
I find that by using this system it is much easier to find wanted material than by searching through stacks of old magazines.—George T. Lundeen.

Hot Bulbs

AN old thick glove kept with your equipment is handy when using flood or flash bulbs. When they're hot you can quickly remove them from their reflectors without burning your hand.—Herman Klein.

Multiple Lighting Units for Flash

MULTIPLE lighting units can be made even though the flash synchronizer does not have a plug-in provided. Screw a female plug



in the bulb socket of the synchronizer and then insert a 3-outlet male plug. This will allow for up to three flash bulbs to be used simultaneously, depending on the power provided by your particular battery set-up.

I use a home-made off the camera flash assembly and a regular clamp-on reflector as shown.—George T. Lundeen.

New Modern 1947 RADIANT Screens

make all pictures
"POP OUT" clearly

Your motion pictures and stills seem to leap out of the screen with amazing realism! Black-and-white pictures possess a new depth and sharpness... color pictures are rich, warm and natural. The new 1947 Radiant "Hy-Flect" glass beaded screen surface makes this wonderful difference in screen performance. Thousands of tiny glass crystals imbedded in the clean, white screen surface reflect light instead of absorbing it. And this is only one of the many improvements in the 1947 Radiant line of screens — you get this...

Plus all these Wonderful Exclusive New Features



New Screen Leveller and New Shakeproof Safety Catch



New Feather Touch Adjusting Handle



New Automatic Leg Opening

1. Automatic Leg Opening (Pat. Pending)—which makes tripod legs fly into position instantly.
2. Screen Leveller (Pat. Pending)—for horizontal levelling of screen when floor is uneven.
3. Shakeproof Safety Catch—to prevent screen from being jarred off when in position.
4. Feather Touch Adjusting Handle (U. S. Patent)—for smooth, easy adjustment of screen to any height.
5. Double-Action Auto-Lock (Pat. Pending)—enables quick adjustment of screen into any position—and instant conversion from oblong sizes (for movies) to square sizes (for slides)
6. Built-in Shock-Absorbers (Pat. Pending) that assures longer screen life.
7. Automatic Leg-Lock.
8. New large-size non-slip Rubber Ball Tripod Feet.
9. Improved Stronger Triangular Steel Tube construction.
10. New Streamlined Design and Duo-color Scheme.
11. Automatic Leg Adjustment.
12. Finger Grip Carrying Handle.



The Radiant "DL" here illustrated is portable, sturdy, compact, easily set up, quickly adjustable. The Radiant Line includes a complete range of wall, ceiling and table models in sizes 22" x 30" to 20 feet by 20 feet and larger.

As a result of these—and other important features—Radiant Screens set up more quickly and easily, hold more firmly in position, offer most convenient adjustment for different projection conditions—and add more pleasure and effectiveness to all types of picture projection.

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Radiant has prepared a 32-page illustrated booklet, "Secrets of Good Projection," which gives you information on proper screen sizes, correct projection lenses, tips for improving projection and many other interesting facts. Mail coupon today for your FREE copy—and full information and prices, on the complete line of Radiant Portable, Wall, Ceiling, Table Screens.

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8 exposure rolls enlarged to approximately twice negative size for only **25c**

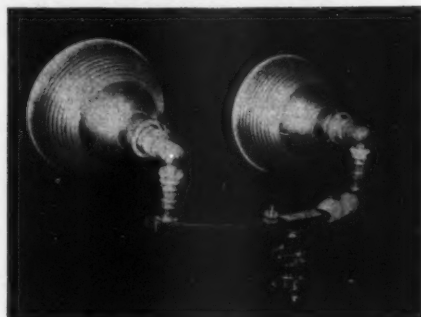
Ask for Free Booklet Magazine, "Pictures"

MINILABS Inc.
 ENGLEWOOD, NEW JERSEY

Box 485

"Coat Hanger" Camera and Light Set

THE portable light set shown below was made to hold either a still or movie camera.

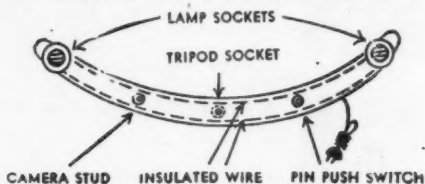


The camera is mounted on the tripod socket, located just off center.

Materials needed are: (1) A hard wood sturdy coat hanger with flat sides, the wider the better. (2) Two plain electric sockets, one to be bolted to hanger top side at each end. (3) One pin push switch, to be inset on top near right end. (4) One tripod socket for center underneath. (5) Five feet of No. 16 guage standard insulated wire, also a terminal, some bolts, nuts and washers. (6) One camera thumb stud for attachment on top a little to left of center. (7) Two reflectors and two lamps.

All parts are mounted on the base with bolts or screws. Care should be taken to position the parts so that the camera will have clearance when being screwed into position. The wiring should be placed underneath as far as possible and well insulated with tape.

The center of the tripod socket is drilled to accommodate the shank of a bolt, the head of which will fit inside the socket threads. The camera stud is drilled in two places between the threads and the perimeter and bolted to



the top of base. When first completed, two small photofloods and two vertical reflectors were used. The total cost was \$1.90.

As photographed, the set is equipped with two 90 degree porcelain and metal swivel plugs for using lights horizontally. Cost of metal plugs: 95c each. Cost of 9 inch tubular chromium plated aluminum reflectors: 50c each. Reflector adaptor clamps: 10c each. Lamps

usually used are 500 watt, 3200 degree Kelvins and No. R2 Photofloods.

It is wise to use a lens shade to prevent the lamps from "back beaming" into the lens. With a strong, steady tripod, and tilt-top (universal joint adapter) the set can be used for vertical shots. A cable release and waiting a few seconds for vibration to stop, will help to insure sharp pictures.—C. C. Engle.

Film Pack Memo Pad

A discarded film pack container can be used as a memo pad for the kitchen, workshop, or for the auto where it can be kept in the glove compartment.

Sheets of paper the proper size are cut and placed in the container which is not altered in



any way. The spider creates the proper tension for writing. When the sheet is to be discarded, the top of the container is lifted to enable easy removal.—Herman Klein.

35th SPECIAL
for only
\$2.00

36 ex. rolls
(NO UNEX)
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DOUBLE SET
(2 of each neg)

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ACTUAL SPUN GLASS

The Actual Spun Glass disc diffuses light perfectly, makes it cooler and glarefree with minimum light loss. Won't scorch, burn or discolor in use. Your portraiture, detail and color work will show a definite improvement.

Regular Glo-Brite Diffusers also available in 3 sizes to fit all reflectors from 9 to 18" in diameter.

Easy, Quick, Economical REFILL FEATURE!

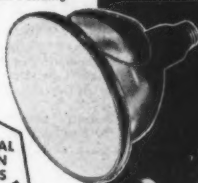
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"GREETEX" Greeting Negatives are a new Help for making attractive personal greeting cards. They permit enlarging with negative of 35mm and up, as well as contact printing. Only one exposure is required. Artistic patterns for all occasions. Each Set includes a general instruction on how to make Greeting Cards.

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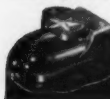
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NEW PRODUCTS

(Continued from page 127)

Adjustable Picture Frame

ADJUSTO, the new expandable picture frame, stretches to fit any photo from 4x5 to 8x10 inches. It sets on a sturdy easel or may



be hung on the wall. Shades available are ivory, tortoise shell, Chinese red or jade green. The frame sells in leading stores throughout the country at \$3.95, and is made by Barrett Plastic Products, Hollywood, California. Alina Sanders Barrett is also the creator of "Harlequin" eyeglass frames, and "Carnival" sunglasses.

Portable Screen

DA-LITE Screen Company, Inc., 2723 North Crawford Avenue, Chicago, Illinois is introducing a new Challenger Tripod Screen.

New features include the "Slide-A-Matic," an inner-locking system which eliminates external locking devices, such as thumb screws, plungers, etc. To adjust the height of the screen, the user simply pulls back on the square elevating tubing, raises or lowers it to the desired height, releases the tubing, and it automatically locks in place. The fully opened screen can be adjusted in height without separate movements of fabric or case.

One motion opens the tripod legs of the new Challenger and automatically locks them in place. A new four-sided "roof-top" shape makes the legs more rigid. No rubber tips are needed for the feet of the new Challenger. The leg itself is formed into a rounded foot which provides a firm grip on any surface, yet will not scratch floors.

The new, smart-looking octagon-shaped case is stronger than the former round case and allows the fabric to roll in or out without rubbing against the edges of the case opening.

Other improvements are the hanger bracket and hanger loop, which hold the screen fabric more securely and prevent it from accidentally slipping off. A new metal carrying handle conforms to the shape of the hand and folds flat against the case for compact storage.

Portable Repeating Flash Outfit

WABASH announces a portable battery model of the Electroflash—designed for press, banquet, night club and on location assignments where flash makes the picture.

Compact and light-weight, this unit weighs only 11¾ pounds and is equipped with a shoulder strap which makes it easy to carry as you change shooting positions.

Complete with batteries, this unit will supply the power for 125 flashes before recharging. A portable AC charger is available as an accessory to this unit for overnight recharging. Just plug into any AC socket and in a short time your unit is ready for 125 shots of synchronized flash. Also, this unit may be charged from your automobile battery while travelling between assignments. A special accessory is available which makes this possible without consuming any more current than your automobile radio.

The light output of this unit, employing an R4330 repeating flashtube, approximates that of daylight color quality which makes it suitable for both color and black and white.

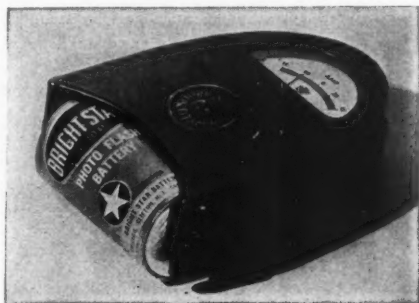
This portable unit is manufactured by Sylvania, manufacturers of electronic equipment and devices. It was photographically designed by the Wabash Corporation. It is built for durability and guaranteed to provide satisfactory performance wherever flash is needed.

The portable battery model of Wabash Electroflash lists for \$190 (plus Federal Excise tax). The AC charger for use with the model lists for \$15.00.

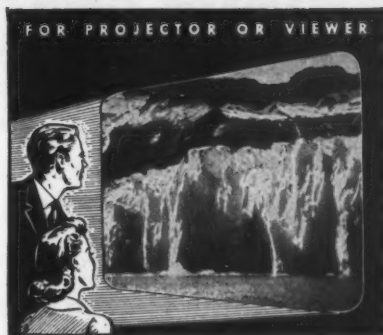
For further information, write for Wabash Bulletin No. 323 which includes operation data and advice on care of Unit. For list of other informative features, write to Wabash Corporation. The AC Studio Model of Wabash Electroflash will be announced soon.

Battery Tester for Flash Photography

SMALL enough to fit in the palm of the hand, King "Sol" Ammeter requires only a fraction of a second to determine the power of a dry cell battery used in a flash synchronizer.



There is no possible way to place the battery in wrong and get an incorrect reading according to the manufacturer, The King "Sol" Research Corporation, 521 Fifth Avenue, New York 17, New York.



Magnificent Natural Color Wesco KODACHROME SLIDES

"TURRETS OF SAPPHIRE..."

and minarets of jade form colorful fairy castles of ice..." That's how Father Hubbard, "The Glacier Priest," describes the wondrous depth of color in the hundreds-of-feet-high ice towers formed when a glacier terminates in the sea. You will feel the same awe he did when you see the pictures he took during his expeditions reproduced in vivid true color and sharply detailed clarity on WESCO Kodachrome transparencies. They're exclusive with WESCO, part of our incomparable "add-a-slide" library.

OVER 200 SUBJECTS from which to choose additions to your own slide library; each a gem of photographic perfection, mounted and individually packaged with authentic detailed caption.

504 each



Also SETS OF 12

In addition to the Alaska series, the WESCO collection portrays exotic customs, costumes and places in Mexico, Guatemala and Hawaii...western scenes of historic grandeur and breathtaking beauty. Buy slides individually at 50c, or in sets of 12 in captioned self-viewing panels.

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A Complete START for \$4.95

for beginners in this fascinating hobby. WESCO's "starter set" features a third-dimensional-effect viewer and six slides of your own choice.

WESCO slide subjects are interesting, colors brilliant, detail keen even when highly enlarged in screen projection. See them at your dealer's.



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Next time demand Bright Star Photoflash Batteries instead of ordinary cells.

BRIGHT STAR BATTERY COMPANY
CLIFTON, NEW JERSEY

8x10 Color Prints

PAVELLE Color Prints are now available in an 8"x10" size at \$3.00 complete with mount. For the present the new 8"x10" size will not be made from 35mm or Bantam size transparencies.

Audio-Visual Instructors Offered Teaching Aids

AUDIO-VISUAL education instructors will be interested in a service offered by the Radiant Manufacturing Corp., Chicago, manufacturers of Radiant Projection Screens. This service includes supplying booklets, articles, discussion charts, samplers of the "Hy-Flect" Glass Beaded fabric, and the Radiant Screen Finder. The material is written so that it may be integrated with the curriculum. In addition, the local Radiant representatives will offer personal assistance to the instructors on any problems of Audio-visual instruction. For a list of available materials, write to Radiant Manufacturing Corp., 1144 West Superior Street, Chicago 22, Illinois.

Telescopic Battery Case and Amplid Reflector

ABBEY Photo Corp. announces two new items for camera fans . . . the Abbey lightweight Telescopic Battery Case and an Amplid Reflector for midjet lamps. When in its normal position, the Abbey Telescopic Battery Case holds three size D dry

ALBERT TRIPODS and Tilt-Top Heads

THE ALBERT TRIPOD—Strong, convenient and rigid. Exclusive patented Albert Ball and Socket joint assures rigid support for heaviest cameras. Quarter turn of the Quick-Lock Clutch instantly releases or rigidly locks the tubular steel legs at any height up to the full 63 inch extension. Reversible leg tips change from rubber to steel in a jiffy.

THE ROYAL TILT-TOP—Standard equipment on all Albert Tripods. Both pan and tilt controlled by one lever. Quick adjustment locks tilt and still permits pan action, further turn locks both pan and tilt. Exclusive Albert camera screw adjusts to fit any camera. Pans through 360° and tilts to nearly 180°. Control handle folds compactly against tripod. Precision machined of bronze, brass, aluminum alloy and steel. Finish in chrome plate.

THE VICEROY TILT-TOP—Extra large ball and pressure band. Large plastic knob adjusts quickly, holds rigidly. Tilts to any angle within 180°. Precision machined of steel and brass, heavy chrome finish. Also has exclusive Albert adjustable length camera screw. Felt pad on platform eliminates scratching camera. Threaded to fit any American tripod.

THE TROJAN TILT-TOP—Simple design assures dependability for cameras not over 2 lbs. Tilts through any angle up to 90° to horizontal. Large knurled plastic knob adjusts and locks setting. Fits all American tripods. Machined of bronze, brass and steel, finished in chrome.

SEE THESE ALBERT ITEMS AT YOUR DEALER

Free Write for your copy of the Albert Catalogue; it illustrates and describes the entire line of Albert products.



cells (4.5 volts), and provides ample current for all average shutters with one, two or three flash lamps. When it is expanded, the Battery Case holds four size D dry cells or 6 volts. Thus it provides extra current for worn or clogged shutters, and is ideal for shooting at high altitudes or with shutters that gum at low temperatures. It also provides extra current for fourth or fifth flash lamps or for 100 foot long remote control set ups. It acts as insurance when fresh batteries are not available, or when Flashgun is to be used in distant lands where batteries may be shelf stale.

The Amploid Reflector is the prewar Amploid reflector for midget lamps—in a newly designed shape and with new engineering features. It has an automatic ejector. No screwing or twisting of bulbs is necessary. This new Amploid Reflector fits all Abbey Flashgun sockets, and is now available at dealers or for further information write Abbey Photo Corp., 856 First Ave., New York City.

Projection Screen

THE new Radiant "DL" screen is a portable tripod model, with the Radiant "Hy-Flect" Screen surface.

Among its twelve improvements are a patented "feather-touch friction clutch," an automatic leg opening device, a protective "shock absorber," a screen leveler, and a dual-action "Auto-Lock".

An uneven floor surface is compensated for by the "Balancer" which keeps the Screen horizontally leveled, varying screen heights are rapidly adjusted, and conversion from oblong sizes, for movies, to square sizes, for slides, is readily made.

The "Hy-Flect" surface, consists of thousands of minute, spherical glass beads evenly imbedded in a white plastic screen fabric.

For complete catalogs, write to Radiant Manufacturing Corp., 1174 West Superior Street, Chicago 22, Illinois.

"GOT ANY PHOTO TROUBLES? —BRING THEM TO ME."

HENRY HERBERT
The Amateur's Aid

I know I'm leading with my chin, but that's what we're here for—to help you amateurs with your problems. We know you have been having trouble getting supplies and equipment. Still we'll lay you an odds on bet that we have in our stock today, any item that you need—or we can get it.

We know you are proud of your color transparencies, that's why we have four different services from the new 3X Kodachrome print to a 11"x14" wash off relief.

The best of cameras DO have a way of getting out of order once in a while. Our repair department knows every make of camera, domestic or foreign, by its first name—and what makes it click properly. It is also equipped to make special fittings for mountings.

As for me, the most fun I get out of life is talking shop. That's my hobby. So if you have any photo problems, bring them to me. Drop into my office or drop me a line. If I don't know the answer I'll find somebody for you who does.

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The Amateur's Aid

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8X10 KODACHROME

Color Transparency Enlarged from your 2x2 Color Slide or any size Transparency. Cropped per your Instructions. 4x5 size.....

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FREE: Plans and Instructions for Mounting Kodachromes in Lighted Wall or Desk Frames.

2x2 SLIDE PROJECTORS—300 watt—Build Your Own. Material, lamp, lenses cost approx. \$4.00. Parts Designed to be made with Hand Tools. Instructions and Full Size Pattern Type Blue Prints (42"x30") of all parts.....

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POLARIZED LIGHT FILTERS. Any size up to 2" dia. (Series V-VI).....

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of 5c per failure if less than minimum of 25 exposures are unprintable. Our specially designed enlargers and accurate temperature control can produce the excellent results possible with your precision miniature camera.

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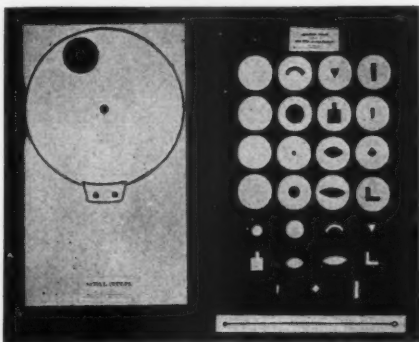
FOTOFOLIO

THE ONLY WAY TO MOUNT
PHOTOGRAPHS PROPERLY!

AREL PHOTO SUPPLY • ST. LOUIS, MO.

Dodging Set

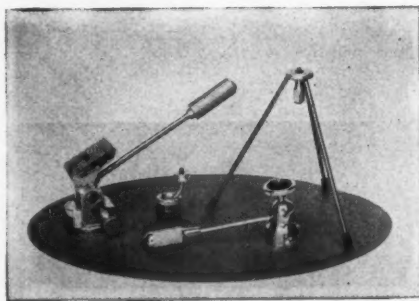
THE Artful Dodger is useful in dodging and spot printing. A set consists of (1) a spot printer with rotating disc, (2) an Aperture Panel of sixteen discs, (3) a wire holder with



twelve different shapes for holding back exposure during printing. The Artful Dodger is made by the Hollywood Photo Manufacturing Co., of 313 Taft Building, Hollywood 28, California, and is available through local dealers. It retails for \$1.95 plus tax.

Accessories

A NEW line of camera accessories is being manufactured by the Kloosterman Company, Inc., 1717 N. Vine St., Hollywood 28, Cali-



fornia. Kloosco items from left to right in the illustration are: Tripod Head WG-100 with a 1-inch sleeve bearing. The protected locking device on pan and vertical tilt provides a positive lock with a simple twist of the wrist. Retail price, \$20.16, plus tax. Small Tripod Head WG-150 is of the swivel ball type with a full 90° tilt. It fits any tripod. Retail price is \$1.67, plus tax. Tripod Head WG-115 features a newly designed bushing which makes panning smooth. Tilt lock requires finger-tip control and is said to continue to operate smoothly under pressure. Retail price is \$10.41, plus tax. Table Top Tripod WG-210 is chromium plated. Steel rubber-tipped legs help to insure strength and durability. It has a serrated,

Treat yourself to the **FULL REALISM**
OF
YOUR SLIDES!



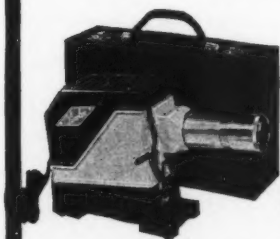
SPARKLING RICHNESS

Enjoy the wealth of detail... the sparkling richness... the lifelike realism captured in your slides. For only a precision instrument, with an optical system as fine as your camera's, reproduces every hue... every texture... every tone you so faithfully recorded.

An ASPHERIC condenser system, for the first time in this country, plus the 2" Luxtar color-corrected COATED Anastigmat lens, give Viewlex this incomparable performance. Operation is smooth and effortless—from helical-groove focusing to built-in finger-tip slide carrier. With this new carrier paper, glass or metal slides are easily inserted and positioned from either direction. Brilliant pictures in full daylight on the Tuckaway screen—or huge pictures on standard screens in only two-fifths the usual projection distance. And the 5" projection accessory, with the interchangeable Luxtar 5" color-corrected Anastigmat lens, quickly converts the AP-1 into a quality long-throw projector. With either Luxtar lens, the sparkle... crispness... realism of your transparencies are vividly reproduced.

BROAD DAYLIGHT!

The Viewlex Model AP-1 projects brilliant images on its Tuckaway screen. No hoods, shades or darkened rooms are necessary!



Seeing Is Believing! See the sparkling richness of your slides projected on the Tuckaway screen. See your dealer.

For those who demand the finest in a conventional-type 5" projector: the Viewlex 300-watt Model AP-3, with the Luxtar 5" Anastigmat color-corrected lens.

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the finest film stocks must go to Uncle Sam—and will continue to go until Victory is won . . . because Kin-O-Lux will not compromise with quality . . . will not use substitute materials, rejects, miscellaneous ends of strips . . . because when you buy Kin-O-Lux Film you can be sure of uniform quality—and that the very best, always.

You can be sure, too, that Kin-O-Lux products have been designed to provide you with greater pleasure . . . greater efficiency — designed to cost you less . . . or give you more for your money at the same price.

KIN-O-LUX INC.
105 West 40 St., New York 18

aluminum head and movable aluminum lock knob with steel screw. Retail price is \$1.50, plus Federal excise tax. All prices are F.O.B. Hollywood, California. Available through dealers or for further information write the manufacturer.

Chemical Filter

The Viking Filtorette, a darkroom helper which filters solutions as they wait on the shelf, is announced by Viking Products. With Filtorette you filter chemicals between use without attention or supervision.

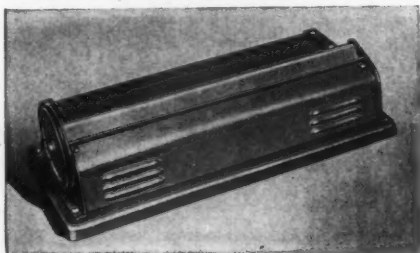
The Filtorette unit consists of two amber bottles, a special connecting cap, a glass vent tube, and a supply of filter discs. The amber bottles give full protection against light and air.

The Viking Filtorette is offered in one-quart, half-gallon, and gallon sizes, at retail prices of \$2.00, \$3.00 and \$4.00 respectively. Additional supplies of filter discs are available at very little cost. Details on this product may be secured from Viking Products, 11435 Chandler Boulevard, North Hollywood, California.



Print Straightener

NOW in production again is the M-40 Print Straightener manufactured by The Morse Instrument Co., Hudson, Ohio. Driven by a



1/50 H. P. 110 volt universal motor, the Straightener imparts a permanent set that counteracts the original paper curl. A single lever adjusts pressure as required.

PARTY TIMES ARE BRIGHT!



... make them brighter with *SUPERFLASH!*



No. 0 SUPERFLASH
—favorite of amateur
photographers; patented
blue "Safety Spot" on
bulb turns pink when bulb
is flashed or has deterior-
ated.

It's easy—inexpensive—and loads of fun to make good party pictures! **SUPERFLASH** bulbs make group pictures better, help capture the bright, festive mood of party-time! Most amateur photographers prefer the **SUPERFLASH** No. 0 bulb for this type of work. They know that the patented *all-Hydronalium* element assures them of positive uniformity and dependability of flash—that the lens-clear safety jackets, inside and outside the bulb, provide extra strength and protection.

When party-times come around, make sure that you're prepared to shoot better, easier group pictures! Ask your local **WABASH** dealer now for a handy supply of No. 0 **SUPERFLASH** bulbs!

**345 Carroll Street
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WABASH "FIRST IN FLASH"

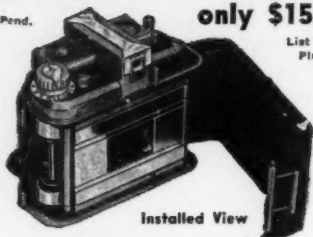
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CHROME FINISH
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 PRECISION MACHINED FOR
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- Converts Medalist I & II to Bantam size film, color or Black & White.
- A new film counting indicator dial for Bantam film.
- No Mechanical changes.
- Installed in 5 minutes.

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Filters

THE Omag Black and White Universal Series Kit contains Omag Deluxe Filter Discs in Y-2 (Medium Yellow), R-2 (Medium Red), O-2 (Medium Orange), and G-1 (Panchromatic Green). Series V is priced at \$10.50, Series VI at \$12.50 and Series VII at \$25.50. This kit is intended for use with all black and white emulsions.

The Omag Color Universal Kit contains the new ChromA (for converting indoor Type A film for outdoor use), Chromeflash (for converting indoor Type A film to flash illumination), Chromeblue (for using outdoor color film under regular indoor illumination) and Chromehaza (for retaining color balance when using regular outdoor Kodachrome under intense ultra violet or haze conditions). Series V is priced at \$11.50, Series VI at \$13.75, and Series VII at \$28.50, plus a small Excise Tax charge.

These Kits are also supplied in standard Omag sizes from 27mm. to 51mm. for Leica, Contax, Rolleiflex (Bayonet and Slip-on) and prices for standard Omag Universal Filter Kits range from \$8.50 complete, with Omag Chrome Interchangeable Mounts. The standard kits are subject to small Excise Tax additions.

Omag Universal Deluxe Filter Kits may be obtained from your local photographic dealer or, if you prefer, the Chess-United Company, Inc., Emmet Building, Madison Avenue at 29th St., New York 16, N. Y., will be glad to supply you directly.



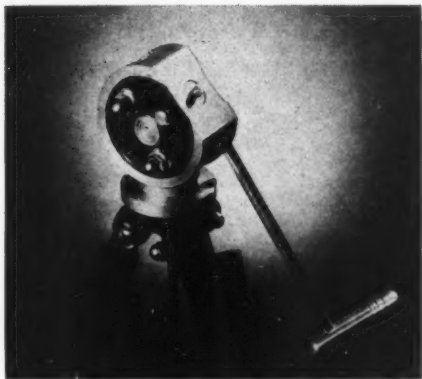
THE PRECISION ENLARGING METER

- Tells how long to expose each enlargement • What contrast grade of paper to use

An extremely wide range of paper speeds plus its neutral color-density "spot" filter makes it especially useful in color work. Used and recommended by the Anasco Laboratories for Princeton color prints. Now available—Price \$9.45

HAYNES PRODUCTS CO., INC., Box 175, Station F • New York 16, N. Y.

THE Krown Kraft Pan-Tilt tripod and head is a departure from other products now on the market. The head embodies a ball and socket



The head retails for \$12.50. The two section tripod for \$22.50 and the three section model for \$32.50. The two section model with the head sells for \$32.50 and the three section with the head for \$42.50. These products are available at photographic stores, or, directly from the manufacturer. Further information may be had from the manufacturers, California Originals, 415 S. San Pedro Street, Los Angeles 13, California.

Water Heater

Flasheat is simply dipped into the water, then plugged into the socket and in a few minutes it will have heated sufficient water to dissolve chemicals and keep developing solutions at desired temperatures, particularly during cold weather. It can also be used in winter to raise the temperature of the washwater for films or paper.

The Flasheat measures 5¼ inches in length by 2 inches in diameter and comes complete with rubber connecting cord. It is priced at \$4.95. For further information and interesting brochures write to the manufacturer.

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The Revolutionary Artful Dodger

Adaptable! . . . 16 different precision-cut shapes to match every need in both SPOT PRINTING forever fogged edges and the enlarging labs of the FRED ARCHER SCHOOL OF PHOTOGRAPHY in Los Angeles. A photographic must and only \$2.17, including tax. Absolute money orders post paid. Send check, to PRACTICAL PRODUCTS P.O. Box 1454, Beverly Hills, Calif.

Check with **PENN** for your darkroom needs

Omega D II Enlarger—For negatives up to 4"x5". New model, with color head.....\$187.95

Federal No. 250 Enlarger—For negatives up to 2 1/4" x 3 1/4". 3 1/2" 14.5 Anastigmat lens; double condenser system..... 75.95

GRA-LAB ELECTRIC TIMER



Measures from one second to one hour. With automatic enlarger switch cut-off and audible time interval signal. Large 8" dial face. A. C. current.

\$19.95

U. S. Cold Light Contact Printer—For negatives up to 5"x7". Area dodge control. Price with 9 Argon lamps.....\$ 44.50

Albert All-Metal 5"x7" Printer..... 25.03

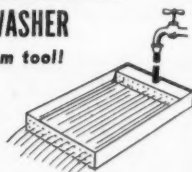
Champion All-Metal 8"x10" Printer—With light intensity control..... 38.50

PHOTRIX PRINT WASHER

An efficient darkroom tool!

For prints up to 8"x10"\$4.34

For prints up to 11"x14"\$7.64



B/J Paper Safe—For paper sizes up to 8"x10".....\$ 9.90

Trays—Unbreakable composition, 8"x10"..... 1.40

Yankee bakelite (white), 5"x7"..... 1.00

Testrite stainless steel, 5"x7"..... 1.08

Testrite stainless steel, 8"x10"..... 3.22

Eastman Studio Scales—Avoirdupois or metric. Please specify..... 4.90

General Electric Interval Timer—From 15 seconds to 2 hours..... 5.95

PHOTOMASTER ELECTRIC DRYER

18"x24" stainless steel surface. Retractable roll-up cover. Hi-lo switch.

\$37.37



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126 WEST 32nd ST NEW YORK 1, N. Y.

"FAMOUS FOR FAIRNESS"

Exposure Meter

A NEW model of the Electrophot exposure meter, the 14-A, has been announced by Adair and Rhamstone, 301 Beaubien St., Detroit 26, Michigan.

The calculator dial provides for the exposure of films with speeds from 3 to 400, stops from



1.4 to 32 and shutter times from 2 seconds to 1/1000th. In addition, movie speeds of 8, 16 and 32 frames per second are indicated on the dial.

The meter with neck cord and list of popular film speeds, lists at \$13.00 plus tax; a leather eveready carrying case is \$1.50 additional. For additional information in the Eastern United States write to J. T. L. Sales Company, 120 Liberty Street, New York 6, N. Y. —in all other areas write to the factory.

Curtis-Wright Enters Movie Field

THE outright purchase of the Victor Animatograph Corporation of Davenport, Iowa, by the Curtiss-Wright Corporation is announced by G. W. Vaughan, president of Curtiss-Wright.

There will be no change in location, personnel or operation of the Victor company which was organized in 1910 to manufacture equipment and materials for the 16mm motion picture industry.

The Victor company is the third firm not directly engaged in aircraft production to be acquired by Curtiss-Wright Corporation and its acquisition continues the company's trend toward taking over manufacturing units where engineering and additional development resources can be used to advantage.

Filter Chart

A FILTER Reference Chart, listing the films manufactured by Eastman Kodak and Du Pont, with the exposure factors to be used with these films when using various types of filters, has been issued by Tikkern Corporation. Of particular interest on the chart is the listing of Weston and American Standard Association speeds for all the films listed. Although a chart is supplied with each Tikkern optical glass filter, a copy may be obtained by writing to Tikkern Corporation, 405 44th Street, Brooklyn 20, New York.

Filmo "Electro" Camera

TO alleviate the pent-up demand for modern industrial engineering equipment, Bell & Howell Company is announcing the new Filmo "Electro" magazine-loading, electrically-driven, 16mm motion picture camera. Designed especially for accurate time and motion study work, the camera is equipped with a fast 21mm F:1.9 lens which affords a somewhat wider angle of view than the standard 1" lens. Other features are a dial footage indicator, accurate operating speeds of 1000, 2000, and 4000 frames per minute, and a built-in 24-volt motor which assures constant filming speed at all times.

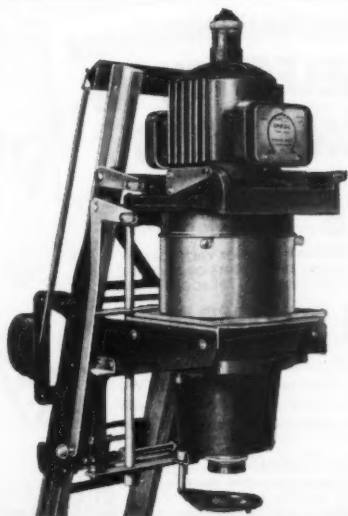
A transformer, which is standard equipment, permits plugging the Electro into any regular house line. Or, storage batteries can be employed when a job study must be filmed in a location where the usual sources of current are lacking, thus making the Electro completely portable.

By no means confined to use as an industrial engineering instrument, the Electro can be employed for general types of cinematography as well, wherever electric power is available, either from standard lines or a portable battery. Company recreational and promotional events, amateur and professional football and baseball games, and race-track finishes represent only a few of the many applications. For conventional use, the Electro is available with speed control calibrated in frames per



second; or the motion-study speeds are readily translated into frames per second by means of a simple conversion table.

Companion-pieces for the Electro are offered by Bell & Howell in the form of a specially-designed 16mm projector and a film viewer.



PUT *Omega* IN YOUR DARKROOM

And see what sharp, faithful enlargements you get from this high performance machine! You will find the Omega dependable, durable, easy to use.

Always the last word in enlargers, the Omega D11 now features a new color head. Permits insertion of heat absorbing glass and color filters between lamp and condensers—making it possible for you to do direct color printing and color separation work.

Stop in at your dealer's and look over Omega's careful workmanship, rigid construction. Then—put one in YOUR darkroom!

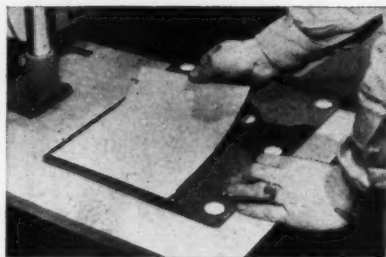
Dept. G, 37-06 36th St., Long Island City 1, N. Y.
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Now Possible with the NEW
BROOKS EASEL



- The Only Easel designed for Making Borderless Prints
- Eliminates masking and trimming
- Saves time and paper
- A MUST for the new color materials
- Fills a definite need of the amateur and professional photographer
- Fabricated of heavy durable masonite

Holds all weights of paper and acetate base materials perfectly flat by means of a newly developed Thermo Plastic Adhesive. Sensitized material is merely "tipped" in place.

#1—For material from 3 1/2"x5" to 11"x14". \$3.89

#2—For material from 11"x14" to 16"x20". \$6.12

Inc. Federal Tax

At your dealers' or sent prepaid if cash or check accompanies order. Ohio purchasers include Sales Tax.

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Kodak Data Book on Formulas and Processing Revised

A THIRD revised edition of the Kodak Data Book on Formulas and Processing has been announced by the Eastman Kodak Company.

Containing a comprehensive list of Kodak formulas together with a discussion of the principles and procedures for processing films, plates, and papers, the new edition incorporates a number of changes to bring it up to date, plus a new section on Negative Faults—how to recognize them and identify their cause—and the formula for the new Kodak Quinone-Thiosulfate Intensifier IN-6 for use with very weak negatives.

Designed and punched to replace earlier Formulas and Processing sections in the Kodak Reference Handbook, this booklet is the first of the Kodak Data Books to incorporate the Company's new method of designating Data Book revisions. Major revisions—as in this case—will be marked Third (Fourth, Fifth) Edition on both cover and page 1. These replace corresponding Data Books carrying no edition designations as well as those with lower edition numbers.

When a Data Book is reprinted with minor changes, the edition number and the copyright date will not be changed, but the printing date will be added, for example: Third Edition, 1947 Printing. In either case, a description of the changes made since the last printing will appear inside the front cover of the Data Book.

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A COMPLETE STOCK OF CAMERAS AND EQUIPMENT FOR EVERY PHASE OF PHOTOGRAPHY. WHETHER YOU ARE A PROFESSIONAL OR AMATEUR, WHETHER YOU ARE A SPORTS OR SCIENTIFIC PHOTOGRAPHER, AREMAC HAS THE CAMERAS, EQUIPMENT, ACCESSORIES YOU ARE LOOKING FOR.

WRITE US... WE DELIVER

During the war years, we were, for both professional and amateur photographer, a source of constant supply of hard-to-get equipment. We delivered and supplied photographic needs, and now continue "on top" with postwar deliveries. Our specialized Mail-Order-Department is eager to help you.

Veterans! Write for Details

Our special Veterans Priority Department will help you get that new hard-to-get camera and pro-

fessional equipment you want. See us for details, or write for particulars.

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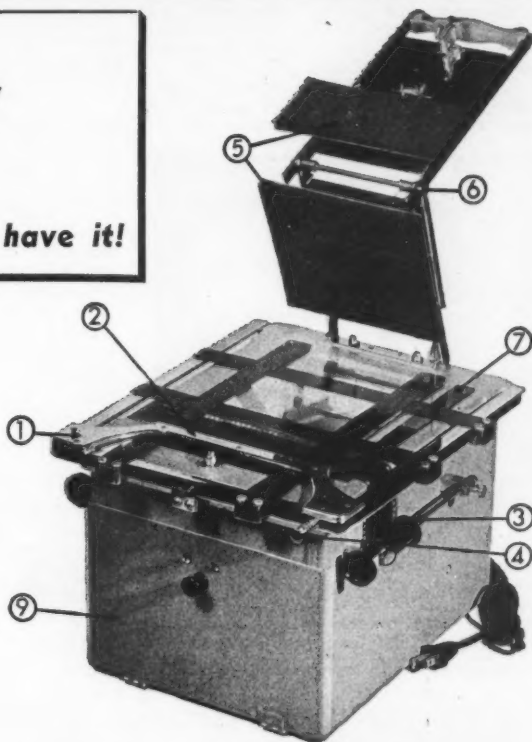
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WE HAVE IT
and now

YOU

can have it!

The
first
post-war
model
of the



CHAMPION PRINTER

ALL-METAL—SIZE 5x7 \$25.45 Tax Included

This is wonderful news! Now you can have the first streamlined post-war model of the CHAMPION PRINTER you've been waiting for. And it was worth waiting for—believe us—for it has all these valuable advantages:

1. Hinged masking frame with pressure bar to keep negative in position. Carries four masking blades in spring loaded, smooth operating, sliding brackets adjustable from zero opening to 5 x 7 inches.
2. Paper guide for even placement of paper.
3. Dual spool take-up for roll printing. Takes all sizes and all types of spools with provision for accurate line-up with masks.
4. Push-button release to keep entire masking frame away from negative when transporting film.
5. Full floating split platen with six pressure points, for printing from plates or film. First downward motion of handle holds paper in position; second motion applies pressure, locks platen and operates switch.
6. Spring loaded handle for automatic return to open position.
7. Transparent rulers for easy reading of print size.

8. Two point light source plus ground glass for perfect diffusion of light. Socket for pilot safe-light. (Not Shown On Illustration.)
9. Door in front with sliding ground glass for easy dodging.

Plus: Ventilation. Non-scratching rubber feet. Six foot cord and plug. Beautiful finish.

Willoughbys

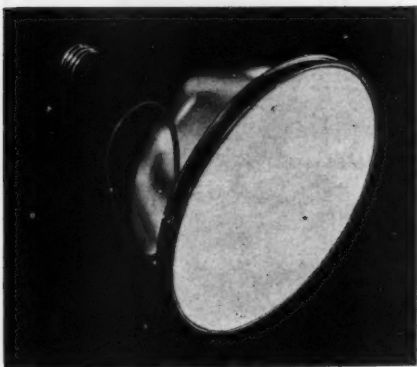
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Spun-Glass Diffuser for Reflector Bulbs

USERS of reflector type floodlights and spotlight type bulbs may be interested in the Glo-Brite Adapto Diffuser, designed by Glo-Brite Products, Inc., 6415 North California Avenue, Chicago 45, Illinois.

Two spring tension clips maintain a secure, positive grip on the bulb at all times. The diffuser is of spun glass and provides efficient



diffusion and glare reduction with a minimum light loss. Refill discs can be purchased and replaced between the hoops quickly and simply.

According to Glo-Brite Products the spun glass discs used in the diffuser produce a definitely cooler light and will not scorch or

discolor while in use. It is particularly effective in detail, portraiture and color photography. The product is now available at most camera stores or you may write to the manufacturer giving the name of your nearest dealer. The complete price of the Adapto diffuser is \$1.50.

Movie Filters and Lens Shade

COLOR movies, like black and white can be improved by using the proper filter. A movie kit combination for use with color film is now available from Tikern Corporation. The kit contains a Tikern Combination Lens Shade and Filter Holder and 3 filters. The filters—one Type A, one Photoflood and one Haze—are supplied in a leather safety pouch.

The kit is available in sizes to fit all popular types of 8mm. and 16mm. cameras. An illustrated brochure, describing this and other Tikern lens accessories, is yours for the asking. Write to Tikern Corporation, 405 44th Street, Brooklyn 20, New York.



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Learn Free Lance, Industrial, Educational and Hollywood film technique at home. Personal supervision. Enthusiastically endorsed by amateurs and professionals. Licensed by Michigan State Board of Education. For a well paid career or paying hobby. WRITE FOR FREE CATALOG.

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35 mm Film Strips

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- Spiral-mounted 4" Doublet lens
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Only \$27.50

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- 150 watt, Double-contact Prefocus Lamp

Only \$39.50

Strip Film Carrier

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\$1.98 PER SET

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Dixie Photo Sales Co., Inc. (Wh'sale Dist.)
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Please send me _____ MARTON Projector Deluxe \$39.50

My Photographic dealer's name is _____

Sorry—NO C.O.D.

Send Money Order

Wollensak means Good Lenses



"Lumbering" by T. Grant Johnson of Quebec, Canada.

This unusual photomontage was made with home-built enlarger and COATED* Wollensak f4.5 Enlarging Velostigmat. Reports Mr. Johnson, "I'm a lumberman working seven miles back in the bush in northeastern Quebec—and a rabid photographer. Bought my Wollensak

COATED* Enlarging lens last December and have on order a Watson camera with Wollensak COATED* f4.5 lens. For sparkling detail and all-over sharpness, I think Wollensak lenses are tops!" Improve your photography with a Wollensak.

*Wollensak lenses are specially treated with WOCOTE, Wollensak's Anti-reflecting Hard Coating, to reduce internal reflections, increase image sharpness.

Wollensak

For Movies, Candid, Enlarging, Action, Stills

OPTICAL CO., ROCHESTER 5, N. Y., U.S.A.

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DE LUXE No. "20"

The Nega-File* provides a new and inexpensive method of filing negatives for both the amateur and professional • Each File is equipped with approximately 100 glassine envelopes, an index and Visible Numerical Guides from 10-100 (capacity of each File is 200 envelopes with an exception of No. 20 which is 400 and No. 24 which is 600) • Each envelope is printed for data record of exposure, etc., excepting envelopes for strip negatives • Envelopes permit view of negative without handling • De Luxe models of solid well-seasoned stock and varnished in natural wood finish available at prices listed below. At your dealer or mail order, P. P. Prepaid, No. C. O. D.'s.

Film Numbers	File No.	Price	Refills	Glassine Envelopes Per C (guaranteed)	Kodak or Acetate Tubes per C (guaranteed)
35mm 828 and 127... "35"		\$2.70	\$1.05	\$0.95	\$1.75
120, 620-2 1/4x3 1/4 negatives..... "20"		2.70	.95	.85	1.60
120, 620-2 1/4x2 1/4 negatives..... "24"		2.75	.95	.85	1.45
620-strips of 3-2 1/4 sqs. or 4-2 1/4x1 1/8..... "22"		3.00	1.30	1.05	2.05
116, 616, 130, 118, 124, 541, 518, 122... "16"		2.85	1.05	.90	1.90
823 and 4x5 cut film..... "45"		3.00	1.35	1.05	2.05
8x7 cut film..... "57"		3.35	1.65	1.35	
8x10 cut film..... "810"				2.05	

(Refills contain approximately 100 additional printed glassine envelopes, another index and Visible Numerical Guides from 110-200.) Refills for #20 Nega-File are now printed to 400 and for Nega-File No. 24 to 600.

Files also available for slides and movie films.

* Reg. U. S. at. Off.

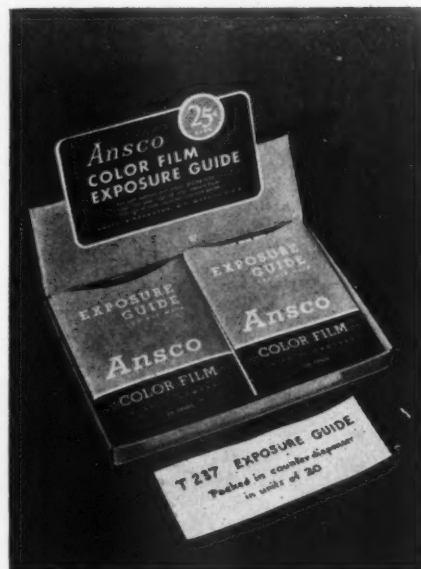
Write for Catalogue

THE NEGA-FILE COMPANY
EASTON, PENNA.

Anso Color Guide

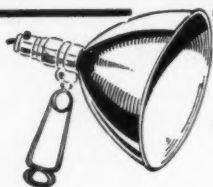
A NEW exposure guide for use with Anso Color Film has been designed by Anso, Binghamton, New York, as an aid to the color photographer.

Printed on plastic, the guide includes instructions for both daylight and tungsten types of Anso Color Film. A movable dial encased in the plastic covering offers the range of ex-



posure for varying conditions out-of-doors, while a similar arrangement on the opposite side of the guide lists shutter speeds and lens openings in accordance with the number of lamps used and the footage between camera and subject.

The guides are packaged in a special counter display box containing 20 units, and are available from dealers for 20 cents each.



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PICTURES OF THE WHOLE FAMILY!**

WE HAVE CLAMP-ON REFLECTORS

Make this Christmas a memorable one by taking indoor shots of your family. It's easy when you use Reflectors.
THESE REFLECTORS ARE AVAILABLE NOW!
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Peerless Package No. 1 Complete Press Outfit 2 1/4 x 3 1/4 Miniature Speed Graphic

New Miniature (2 1/4 x 3 1/4) Speed Graphic Camera with coated f4.5 Kodak Ektar lens in Supermatic Shutter with built-in flash synchronization. Kallert E-2 coupled rangefinder. King Sol Flashing Unit with 6" reflector. 6 double cut film holders and carrying case.

	LIST PRICE	PACKAGE PRICE	Package No. 1 Complete
Camera and Lens.....	\$173.90	\$173.90	\$263.00
Rangefinder.....	41.50	41.50	
Gun.....	22.65	17.00	
6 Holders.....	13.50	2.50	
Case.....	12.50	7.50	
	\$274.95	\$263.00	You Save \$11.95



Peerless Package No. 2 Enlarger and Accessories FEDERAL No. 250 ENLARGER

Federal Model 250 Enlarger for negatives up to 2 1/4 x 3 1/4 with double condenser lighting system. 3 1/2" F4.5 Anastigmat lens, set of 3-7x10 trays, set of print tongs, 8" Trimming Board, 11x14 Victory Enal, Peerless 11x14 Dryer, 8x10 Fhoxir Print Washer.

	LIST PRICE	PACKAGE PRICE	Package No. 2 Complete
Enlarger.....	\$75.95	\$68.45	\$94.30
Trays.....	2.25	1.80	
Tongs.....	.40	.40	
Trimmer.....	4.50	4.00	
Easel.....	8.90	8.00	
Dryer.....	9.95	8.00	
Washer.....	4.34	3.95	
	\$106.30	\$94.30	You Save \$12.00

12" f4.5 GUNDLACH RADAR LENS in BETWEX No. 5 SHUTTER

Brand New! A superb lens for portraits. for only
Closes to f4.5, for extreme depth of focus. Shutter speeds 1/4 sec. to 1/50, time and bulb. **\$149.50**

LATEST CAMERAS

- ARGUS A-2, 35mm, f4.5 lens, built-in extinction type exposure meter, Eveready case.....\$24.52
- ARGUS C-3, 35mm, f3.5 coated lens, coupled rangefinder, synchro flashgun, Eveready case.....\$69.98
- PERFEX 55, 35mm, f2.8 coated Wollensak lens, coupled rangefinder, shutter speeds to 1/1250.....\$69.42
- GRAFLEX FINGERPRINT CAMERA, 2 1/4 x 3 1/4, f8.3 E.K.A. lens in shutter, batteries, lamps, focusing panel, 1 film holder. Besides its use in law enforcement, this camera is excellent for photographing small objects such as coins and jewelry.....\$71.50
- ROLLEI STEREO CAMERA, 8x13 Helioscope, twin matched f4.5 Carl Zeiss Tessar lenses, compur shutter, film pack adapter, 12 septum cut film magazine, genuine leather case.....\$452.73
- NEW-VUE, 4x5 Commercial View, all metal, 20" bellows extension, all swings and tilts.....\$79.50
- BRAND PRESS-VUE, 4x5, all metal, for hand and tripod shots, 17" bellows extension, all swings and tilts.....\$87.50
- BUSCH PRESSMAN, 2 1/4 x 3 1/4 press camera.....\$70.77

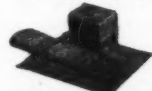
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- ELWOOD C-2, 8x10 Commercial Enlarger.....\$205.35
- ELWOOD SP-2, 5x7, uses 200 or 400 watt lamp.....99.00
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IT'S PEERLESS FOR LIGHTING! Clamp-On Reflector Units



\$2.25

Complete unit consists of heavy gauge spun aluminum parabolic reflector, polished outside and diffused finish inside, mounted on strong, spring clamp with rubber covered jaws, double ball swivels and 6ft. cord.

- 9 in. dia. unit.....\$2.25
- 10 in. dia. unit.....2.50
- 12 in. dia. unit.....3.50

TWIN REFLECTOR STAND UNITS

Two parabolic reflectors attached by hollow shank studs and friction ball swivel sockets, to swiveling cross-arms. Complete with 3 section Light Stand and 6 ft. cords.

- Twin 9 in. unit.....\$9.45
- Twin 10 in. unit.....\$9.95
- Twin 12 in. unit.....\$11.95

Surplus Sale—G. E. R-2 Reflector Floods

At 30% discount. Eliminate the need of Case of 24 aluminum reflector since this lamp contains its own built-in reflector providing an 80°-90° beam spread. Sold only in case lots. **\$16.95**

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- SENIOR-TYPE 19, 5000 watt Spot.....261.50

All accessories available for Bardwell & McAlister Lighting Equipment. Write for full descriptions of Lights and Accessories.

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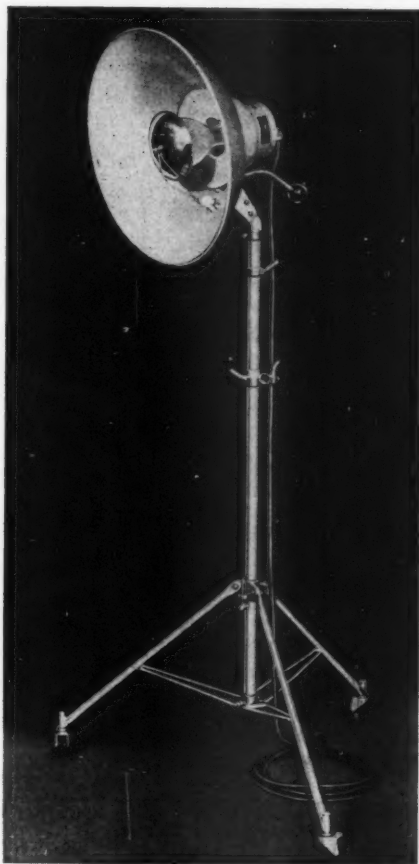
MOVIE NEWSREELS

1426 North Wilcox Ave., Hollywood 28, California

Studio Light

A PORTABLE studio light with reflector adjustments from 18 inches to 8 feet, is the new Morse M-60 Light. It employs dual voltage control to prolong lamp life and operating comfort.

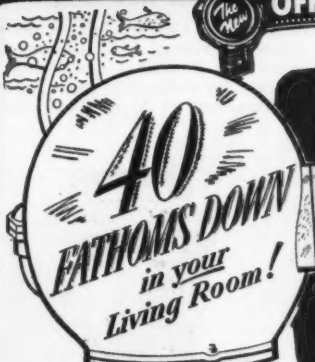
The M-60 reflector is of anodized aluminum, 21" in diameter, adjustable by top and side mounting brackets, telescoping tube standards



and a tilt control handle. A removable adjustable deflector is standard equipment to diffuse the light. Legs open and lock automatically to form a wide, rigid tripod base equipped with smooth rolling casters that allow movement of the unit safely even at its greatest extension.

Of particular interest is the dual voltage control of the No. 4 Photoflood Lamp. Two separate switches are provided. One controls a resistor, cutting voltage to approximately 90 volts and eliminating intense heat and light during posing and focusing. The second switch controls the full intensity of the light. Available from dealers or for further information write the Morse Instrument Co., Hudson, Ohio.

OFFICIAL FILMS PRESENTS



THIS SAVAGE fight between an octopus and a giant turtle is one of many pulse-quickenning sequences in "UNDERSEA LIFE."



Far down in the depths of the ocean, lies an undersea world of terror and wonder . . .

Now, at the click of a switch, you can enter that world. For the new Official Film, "UNDERSEA LIFE" makes your home screen a magic window beneath the sea!

You'll see fantastic forms of life grappling for survival. You'll see

how the eight monstrous tentacles of an octopus overcome a giant turtle—and how the octopus, in turn, succumbs to the high-voltage weapon of a giant electric ray! Yes, here is a picture so real, so gripping, that it will thrill you and your friends again and again. Ask your dealer for "UNDERSEA LIFE"—or mail coupon now!

OTHER

Great New OFFICIAL FEATURES!

GIANTS OF THE SEA. See a 4,200-pound devil fish captured... and a 200-pound sting ray, whose lashing tail means death!



GAY GAUCHO. A new Brownie Bear cartoon. Gaucho Brownie riding the range to see his sonarito. Pedro, the bandit, gets there first. A wild, wild chase across the desert.



Football tactics demonstrated by big-time teams in "OFFENSIVE FOOTBALL" and "DEFENSIVE FOOTBALL", 16 mm. S.O.F. Ken Carpenter narrates.



UNCLE TOM AND LITTLE EVA. A gay animated cartoon of Uncle Tom, Topsy, Little Eva, Simon Legree...complete with blood hounds!

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OFFICIAL'S EXCLUSIVE 16 mm. star-studded musical revues to entertain you and your guests whenever you wish! 36 new releases (just cut! Mail Coupon for complete list. 100 feet (sound) \$7.50 each

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	8 mm. short	8 mm. Foot.	16 mm. short	16 mm. Foot.	16 mm. sound
UNDERSEA LIFE	\$1.75	\$8.50	\$2.75	\$8.75	\$17.50
GIANTS OF THE SEA					
GAY GAUCHO					
UNCLE TOM & EVA					

DEFENSIVE FOOTBALL
OFFENSIVE FOOTBALL

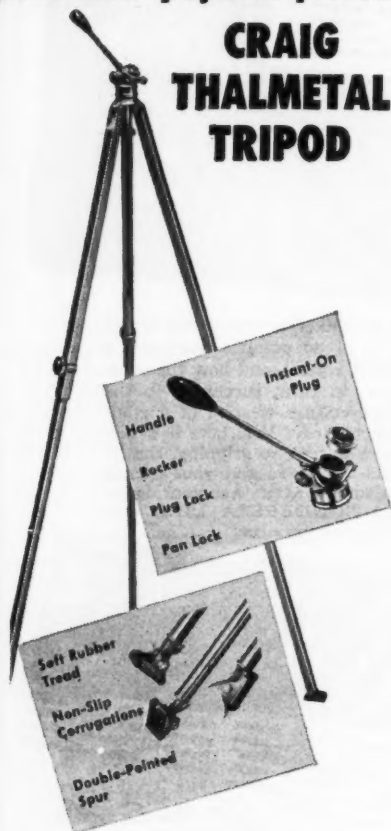
16 mm. S.O.F.
B & W—1 reel: \$25

- () Ship C.O.D. () Remittance Enclosed
() Check here for New 32-page 1947 catalog of over 230 silent and sound subjects
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IT'S HERE . . .
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CRAIG THALMETAL TRIPOD



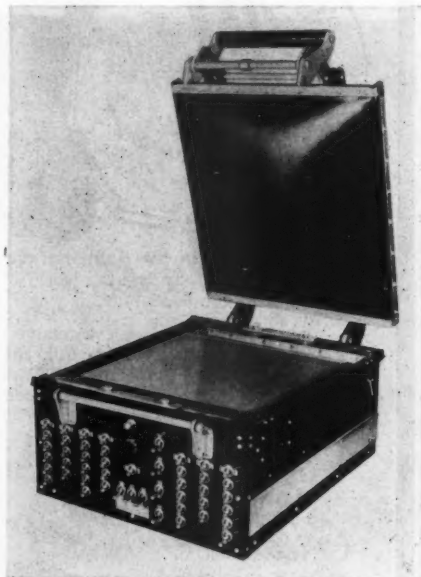
From head to foot the Craig Thalmetal Tripod is a photographer's dream come true! The head is a famous Thalhammer Pan-Tilt with exclusive "Instant-On" plug (just fasten the plug to your camera and you can mount or dismount in an instant!). There's a full 360° pan action and a tilt action of 125°. The two-section legs are of sturdy, smooth-gliding tubular aluminum with an extended height of 60" and a closed height of 32". Exclusive Sure Foot Points allow a finger-flip choice of rubber tread or double-pointed spur grips. Only \$19.75 complete!



CRAIG MOVIE SUPPLY CO.
Los Angeles • San Francisco • Seattle

Air Forces' A-14 Printer Now Available Commercially as Morse M-20 Printer

THE famous A-14 Contact Printer, designed by The Morse Instrument Co., Hudson, Ohio, for the Army Air Forces, is now being produced by Morse for commercial use. The post-war model, cataloged as Morse-M-20 Contact



Printer, includes all the features of the military printer, according to Otis E. Burgess, Morse's Vice-President.

Using 39 highly actinic, "cold light" Argon glow lamps for its light source, the M-20 offers extremely fast and efficient printing. For example, an average 8"x10" negative can be printed in only 1 second. Dodging and vignetting is close, quick and accurate as each Argon lamp is operated by a separate toggle switch located on the front panel of the unit. With the dodging pattern established, any number of prints can be made—each duplicates its predecessors. The pattern may be erased or altered as rapidly as the operator can flip his switches. Two white viewing lamps and 4 ruby safe lights are also switch-controlled from the front panel.

A further aid to top-quality prints is provided by the Morse inflated platen. Positive, uniform contact of over 600 pounds between paper and negative is achieved—contact so efficient that every dot in an engraver's 133 line halftone screen can be printed in perfect detail, so they tell us.

Electric connections are provided for either manual or timer operation. Negatives up to 8"x10" can be printed and photographic papers up to 11"x14" in size.

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Tips on Better
**COLOR
 PICTURES**



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You'll find this booklet, written by noted color photographer Ivan Dmitri, full of practical ideas that will help you get better color shots. 19 sparkling full-color illustrations, covering a wide range of subjects . . . with tips on each that you can use. Also tells why the new, improved G-E exposure meter, with its full-range coverage of the spectrum, can help your camera get better pictures. Get a copy from your dealer today. Price 15¢. General Electric, Schenectady 5, N. Y.



new, improved
G-E exposure meter
 \$26.95
 Federal tax included

GENERAL ELECTRIC

Enlarger Cover

A NEW application of Vinylite plastic in the photographic field is Tikern Corporation's Vinylite enlarger covers.

While, in the past, difficulties were experienced by covers "brittling" and tearing, especially from contact with the sharp corners of enlargers, Tikern's new "Large-a-Cover" is tear and puncture resistant. Its moisture-proof properties prevent metal parts from tarnishing, and it is both acid and stain resistant. There is a drawcord closure at bottom, and convenient hanging loop at top.

These covers are available in two sizes measuring 23"x30½" and 27"x35" at list prices of \$1.45 and \$1.85, respectively. Further information may be obtained from Tikern Corporation, 405 44th Street, Brooklyn 20, New York.

More Colorstigmat Lenses

TWO new enlarging lenses have been added to the "Colorstigmat" line of the American Precision Optical Systems, 7 Oliver Street, Newark, N. J. The new lenses are a 105mm, f:4.5 and a 127mm, f:5.6.

The 105mm lens is designed to cover a 3¼x4¼ negative and the 127mm lens will cover a 4x5 negative. Both lenses may be used for either color or black-and-white enlarging and are guaranteed to resolve images on the order of 2000 lines per inch in black-and-white, 1000 lines in color. Free descriptive literature is available from the manufacturer.

Processing of 16MM Ansco Color in L. A.

TO SAVE transportation time from the West Coast Ansco has established a new processing service for their 16mm Color Film at the company's Los Angeles Branch Office. Only amateur lengths of this new motion picture film will be handled.

Ansco is planning also to establish a similar service later this year at Chicago for the benefit of Mid-West users of this color product.

Before the new center was opened at the Los Angeles Branch Office, 1224 South Hope Street, all processing was carried out in the laboratories in Binghamton, New York.

Folding Projection Table

A NEW projection table that will hold movie projector, films and accessories when open, is equipped with a patented folding device that makes for easy adjustment. The table top is 5-ply hardwood veneer and mahogany finish. It is distributed by the Empire Motion Picture Screen Co., of 2287 East 16th Street, Brooklyn 29, N. Y.

The folding projection table measures 14¾" wide x 26" long and 26½" high, when set up, and can hold a sound projector, or a number of other items around the house. It weighs only 11 lbs., making it easy to handle. Compact folding allows it to be stored away in a closet without taking up too much room. The table retails at \$9.95 and is now available from dealers in ample quantity.



MODEL TM-8

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ELECTRONIC PHOTO TIMER

ALL THE FEATURES
Plus
GREATER THAN EVER VERSATILITY

990 split second intervals from .1 sec. to 110 sec.
Extra outlet for safelight which goes "off" during timing interval. Fully automatic. Operates from foot or contact switch. Designed and built to meet the most critical requirements of commercial plants for accuracy, versatility, and wear.

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No Motors, Springs, Clockwork Mechanisms to Fail. No Noise, No Vibration.

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Arkay's

new STREAMLINED DESIGNS

Arkay streamlines printing with the new slope-design base to prevent tipping under pressure. The new SAFE-LIGHT lens diffuses light over a greater darkroom area for better working conditions. Precision-built, all metal, this brilliant new Contact-Printer is LABORATORY ENGINEERED for perfect prints! \$15.95 plus tax.*

* Subject to OPA Approval

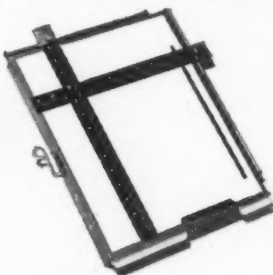


The
smoother,

**SLOPE-DESIGNED
ZEPHYR CONTACT
PRINTER**

The
radically new

**EASY
EASEL**



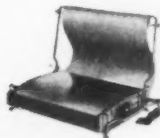
The handy finger-tip lever does all the work on this amazing new Easel! A touch of the finger—the platen depresses—paper is inserted from convenient RIGHT EDGE—release the lever and your paper is perfectly squared! No border adjustments! Only 2 masks! See the Easy-Easel today or write for complete details! 11" x 14", \$9.85 plus tax.* 5" x 7", \$8.85 plus tax.*

* Subject to OPA Approval

Model A-24 for table top. 20½ x 28" base. Thermostatic heat selector. All types of prints. Variable apron tension. Chrome drying area.



Model F-17A
Flipper dryer
Temperature control.
2 drying surfaces 12 x 18½"



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FOR THE FINEST
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DARKROOM
EQUIPMENT**
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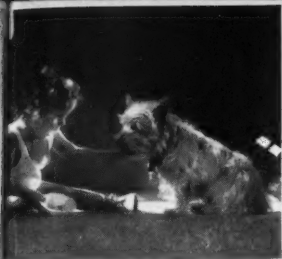
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SALONS AND EXHIBITS

★ FOLLOWS P. S. A. RECOMMENDED PRACTICES

Closing Date	Name of Salon	For Entry Blank, Write to	Number of Prints and Entry Fee		Dates Open to Public
Exhibit to see	★ Los Angeles International Color Photography Exhibition.				Los Angeles County Museum, Los Angeles, Calif., Sept. 15-Oct. 15
Exhibit to see	★ Second Indianapolis International Salon.				John Herron Art Museum, Indianapolis, Ind., Sept. 22-Oct. 27
Exhibit to see	Omaha International Salon of Photography.				Joselyn Memorial Art Gallery, Omaha, Nebr., Sept. 29-Oct. 20
Exhibit to see	★ Sixth Annual Victoria International Salon of Photography.				Empress Hotel, Victoria, B. C., Canada, Oct. 6-13
September 23	Twenty-first Annual Salon of Photography.	Cornelia B. Vest, Ass't Curator, The Museum of Fine Arts of Houston, Houston 5, Texas.	4	\$1.00	Museum of Fine Arts of Houston, Houston, Texas, Oct. 13-Nov. 3
September 25	Seventh Annual Vancouver International Salon of Pictorial Photography.	C. W. Hunter, 8619 Montcalm St., Vancouver, B. C., Canada.	4	\$1.00	Vancouver Art Gallery, Vancouver, B. C., Canada, Oct. 22-Nov. 10
September 28	★ Third Chicago International Color Slide Salon.	Mrs. Muriel Gray, 211 S. Grove, Oak Park, Ill.	4 2 x 2 slides or larger transparencies	\$1.00	Chicago Historical Society, Chicago, Ill., Oct. 15, 17, 18, 19
September 28	★ Third Louisville International Salon of Photography.	Andrew G. Thome, Chairman, 2112 Village Drive, Louisville 5, Ky.	4	\$1.00	Watterson Hotel, Louisville, Ky., Oct. 21-26
October 7	★ 1946 Exhibition and Convention of the Photographic Society of America.	Charles A. Kinsley, Gen. Chairman, Kodak Camera Club, Kodak Park, Rochester 4, N. Y.	Four sections: B and W pictorial; Color; Nature, including color; Technical, including color	\$1.00 each section	Memorial Art Gallery, Rochester, N. Y., Oct. 30-Nov. 2
October 15	Ninth Rhode Island National Salon of Photography.	Raymon A. Kinnecom, c/o Mrs. Arthur S. Kinnecom, 60 Corinth St., Providence, R. I.	4	\$1.00	Nov. 1-18
October 15	★ Eleventh Annual Western Ontario International Salon of Photography.	A. E. Adams, Salon Chairman, London Camera Club, 212½ Dundas St., London, Ont., Canada.	4	\$1.00	Elsie Perrin Williams Memorial Public Library and Art Museum, London, Ont., Canada, Nov. 1-23
October 15	Eighth Annual Atlanta Salon.	Mrs. Hal Drake, Sec'y., 685 Morningside Drive, N. E., Atlanta, Ga.	4	\$1.00	
October 16	★ Thirty-seventh Chicago Camera Club Salon.	Chicago Camera Club, 137 N. Wabash Ave., Chicago 2, Ill.	4 Mono- chrome and/or 4 color	\$1.00	Chicago Camera Club, 137 N. Wabash Ave., Chicago, Ill., Nov. 3-Dec. 1

When writing for Entry Blanks, mention MINICAM



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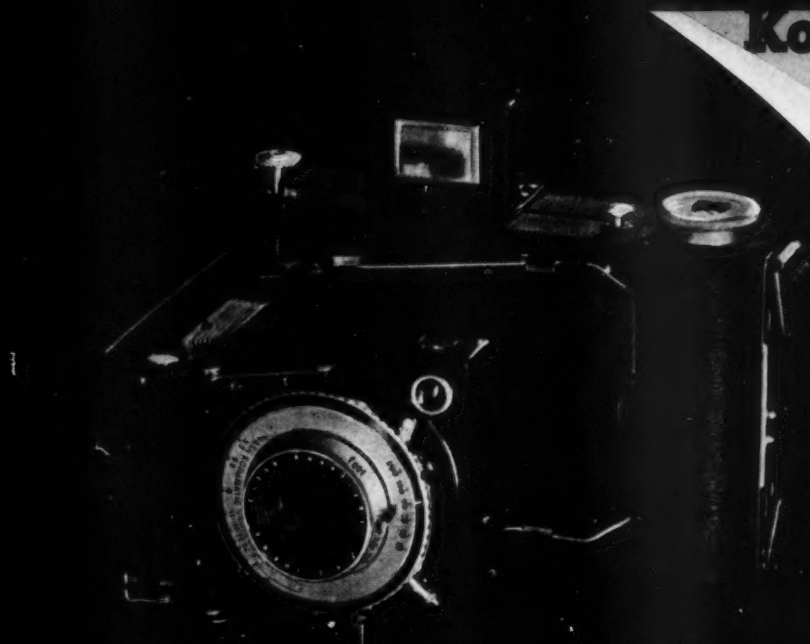
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